Delhi Distt

1912

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GAZETTEER OF THE DELHI DISTRICT.
PART A.—1912.

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PUNJAB

DISTRICT GAZETTEERS,

VOLUME V A.

DELHI DISTRICT,

WITH MAPS.

1912.

COMPILED AND PUBLISHED UNDER THE AUTHORITY OF THE PUNJAB GOVERNMENT.

Lahore:
THE "CIVIL AND MILITARY GAZETTE" PRESS,
Sole Contrs. for Printing to the Punjab Government.

1913.

PREFACE.

The first Gazetteer of the Delhi District was published in 1883-4. In his preface the Editor noted that " the great mass of the text has been taken almost, if not quite, verbally from Mr. Maconachie's Settlement Report of the District."

In those days District Gazetteers were in their infancy and Settlement Reports were expected to contain a large amount of information which had but an indirect bearing on the Settlement. The progress of an administration has now determined that Settlement Reports are to be merely reports showing to Government what work the Settlement Officer and his Establishment have done, and that all other matter of general public interest should be relegated to the Gazetteer. The Punjab Government has laid down very definite directions as to how Gazetteers are to be compiled and has placed the burden of their compilation on the *Settlement* Officer as a special duty.

2. In accordance with the instructions, I, as Settlement Officer, revised the Gazetteer in the year 1910, but I advised Government to delay the issue because there was to be a new Census in 1911 and it seemed advisable to await the new Returns of population which would affect so largely the matter contained in Chapter I, Section C. It was fortunate that Government agreed, for the Imperial announcement on December 12th, 1911, creating Delhi the Capital of India caused ultimately the dismemberment of the Delhi District on October 1st, 1912.

Accordingly this Gazetteer has been prepared to show the state of the old Delhi District of the Punjab Province as it existed at the time when the new Province of Delhi was constituted.

3. Much of Chapter I, Section B. (History) and Section C. (Population) have been reprinted after checking from the old Gazetteer: some of Chapter II, Section E. (Arts and Manufactures) has been similarly reprinted; but the rest of the Gazetteer is almost entirely new. In each case information was collected from the Local Officials who were in the best position to supply it.

On the receipt of the 1911 Census figures, Mr. J. F. Mitchell, I. C. S., Assistant Commissioner, took up the work and brought it up to date. I am much indebted to him for the trouble which he took.

H. C. BEADON,

Deputy Commissioner.

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Map
OF
DELHI DISTRICT.
(No. 1).

Scale—8 Miles = 1 Inch.

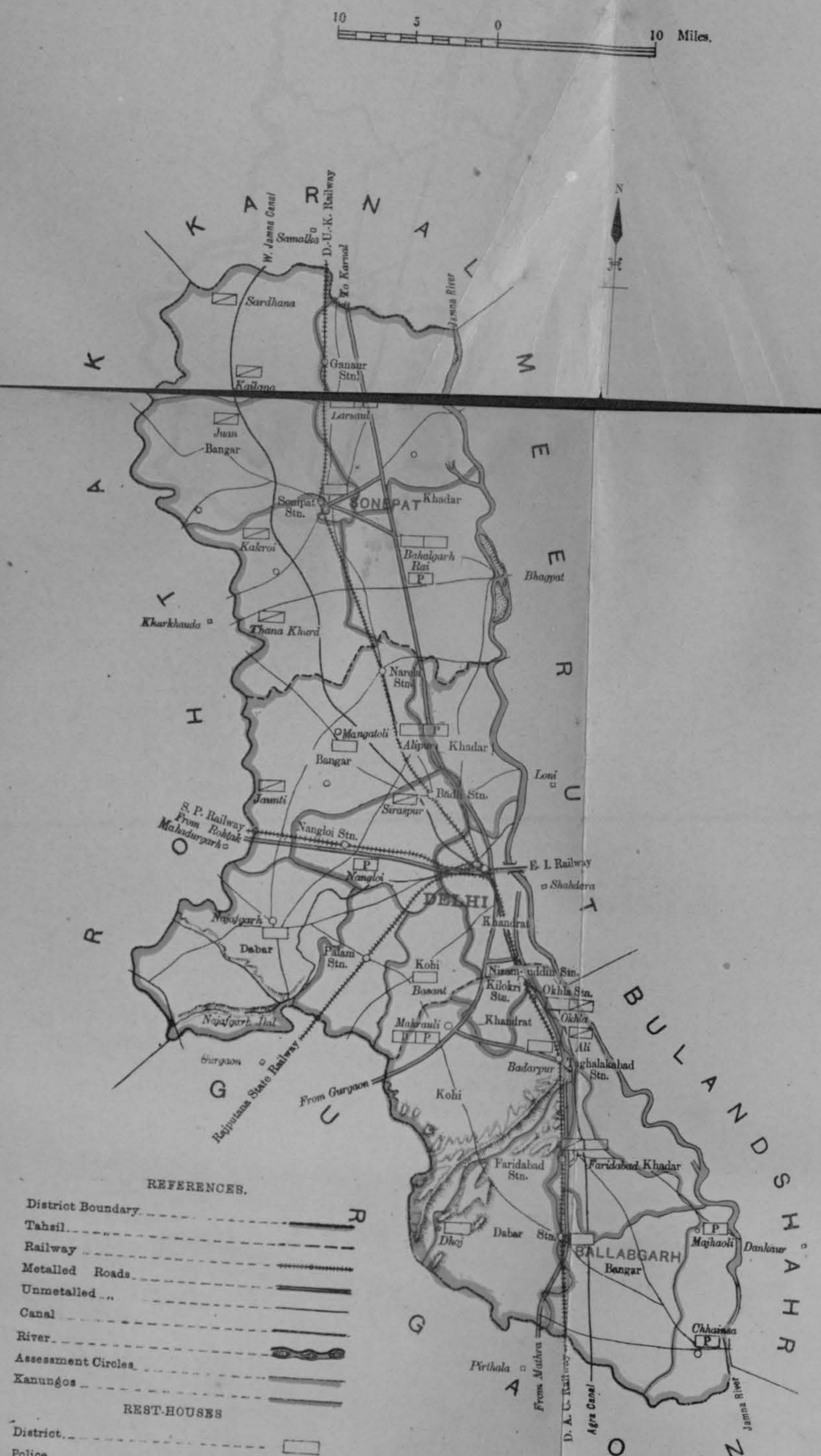


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Zinco. July, 1913.—No.600 = 600.

CHAPTER I.—DESCRIPTIVE.

Section A.—Physical Aspects.

The district takes its name from the important city of worldwide repute within its limits. Though the city is supposed to date from the 15th century B. C. and to have flourished subsequently under various names, it was not till the first century B. C. that the name Dilli is first met with. The true derivation of the name is lost in the clouds of antiquity, but it is generally supposed that it was named after Rajah Dhilu from which the corruptions Dilli, Dehli, and finally Delhi were evolved. The vernacular spelling is still Dehli.

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Name.

Constitution and Boundaries.

The district of Delhi which forms a part of the provincial division of that name is a strip of country on the right bank of the river Jamna. The city of Delhi, which is conspicuously marked on any map of India, overlooks the river at a point somewhat to the south of the middle, of the district with a geographical position given as latitude about 28° 39' north and longitude about 77° 13' east. The district is sub-divided into the three tahsíls Sonepat, Delhi, and Ballabgarh counting from the north. The greatest length is about 76 miles and the average breadth 18 miles, though in one place (just south of the city) the width expands to as much as 26 miles. The total area is about 1,250 square miles, but varies according to what channels of the Jamna are for the nonce accepted as the deep stream.

It contains two towns of more than 10,000 inhabitants *viz.* :—

Population according to Census of	1881.	1891.	1901.	1911.
Delhi City	173,393	192,579	208,575	232,837
Sonepat	13,077	12,611	12,990	12,014

The administrative headquarters are at the modern city of Delhi (Sháhjáhánábád) which lies on the right bank of the Jamna at about the centre of the district, and is about 700 feet above the sea level. The district stands 30th in order of area and 17th in order of population among the districts of the province. The development of Delhi city during the last few years has been most marked.

Physical Features.

With the exception of the Jamna river on the east, which is the provincial boundary with the United Provinces' districts of Meerut and Bulandshahr, the district boundaries follow no natural features, having been formed for convenience of administration. The district marches to the north with the Karnal

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district (tahsíl Panipat), to the west with the Rohtak district (tahsíls Gohána and Jhajjar) and with the Gurgáon tahsíl of the district of that name, and to the south with the Palwal tahsil also of the Gurgáon district.

The conformation of the country is decidedly interesting. As is evidenced by the direction of the Jamná, the general slope of the district is from north to south : beginning from the North Western Jamna Canal passes down a barely perceptible watershed irrigating the gentle slopes on either side : to the east the drainage passes into the Jamná, and to the west passes by natural depressions southwards, to find a resting place in the Najafgarh Jhil. Just north of the city the Delhi Ridge of historic memory, the culminating spur of the Mewát branch of the Aravelli hills, forms an insuperable bar to the would-be line of drainage: this range forms a fresh watershed, so that the normal drainage on the right bank of the river passes at Delhi as it were into a new series. Again a canal, in this case the Agra Canal with its head works at Okhla, passes down the local watershed and the conformation as described in the north is reproduced. The tract thus described though exhibiting none of the beauties of mountainous districts, possesses a considerable diversity of physical feature, and in parts is not wanting in picturesqueness which it owes to the hills and to the river. The former, skirting the present city on the north-west and west, stretch away nearly due south to Mahrauli: before reaching this place, however, they branch out into two halves, one going full south the other sweeping round in a curve to the south-east to Arangpur, whence again it turns south-west and, uniting with the other branch below Bháti, holds on southward to Kot, and so out of the district into Gurgaon. But though the main direction may thus be described, there are here and there irregularly shaped spurs which break the continuity of the range, and at the same time greatly extend its area. The irregular oval enclosed by the branching halves above spoken of is really a plateau of a light sandy soil, lying high and generally dry, but with a very useful slope to the south. Here in different places are earthwork dams aggregating several miles in length, made to catch the drainage. The hills of Delhi though not attractive in themselves, give a pleasant view across the Jamna, and in clear weather allow, it is said, even a glimpse of the Himalayas. Their surface is generally bare, supporting little or no vegetation save a stunted *kíkar (Acacia arabica)* or *karil (Capparis aphylla)* or the small bush of the *ber* (*Zizyphus nummularia*) which with its prickly thorn is so inhospitable to the pedestrian. The surface of the ground is sprinkled with thin laminæ of mica which shine in the sunlight like gold. The stone, which juts up from the ground here and there, is hard and often sharp-edged. Water of course lies very deep, and irrigation by well is almost everywhere impracticable. A moderate pasture is obtained by flocks of sheep and goats herded by Gujar boys. The highest point of the range

probably is near Bháti—1,045 feet above the sea and 360 above the Jamná Railway Bridge at Delhi. CHAP. I, A Physical Aspects.

The hills divide the district into two parts: the northern, which is the larger, is also the more fertile and more populous. Without going minutely into details which will with more advantage be treated of in describing the various assessment circles, it may be said that this larger half of the district consists of three parts—the Khadar or riverain of the Jamna, the Bangar or level main land, and the Dabar or lowland subject to floods. The Khadar lies rather low, has a light sandy soil, and easy irrigation from wells. The Bangar is higher and by nature drier: the Western Jamna Canal however traverses its whole length and affords satisfactory irrigation to a tract which before the realignment was being seriously damaged by *shor*. The Bangar, too, is traversed by the Delhi-Umballa-Kalka Railway with four stations at Ganaur, Sonepat, Narela and Badli and in the extreme south there is the Nangloi station on the Southern Punjab Railway. The Grand Trunk Road passes through the edge of the Khadar close to the Bangar boundary.

The Dabar lies to the west of the hills and consists of the low basin which is the receptacle for drainage from the hills and parts of the neighbouring districts of Gurgaon and Rohtak. In years of good rain an area of 20 square miles is flooded, the Najafgarh escape channel carrying off to the Jamna water, which if held up would flood an even larger area. Thirty years ago the floods extended to as much as 80 square miles but, owing to the diversion of the Sahibi Naddi and the silting up of tributary depressions, the flooded area has been much reduced; still in the main *Jhil* depression on the Gurgaon border there is generally some 5 square miles of *Jhil* during the cold weather. The eastern part of the Dabar is traversed by the Rajputana-Malwa narrow guage line with one station at Palam.

As is well known, modern Delhi is just to the south of the Ridge, and the ruins of the former cities extend southwards for eleven miles to Mahrauli. There can be little doubt that the Moghal Emperors chose the locality for the two important reasons that building stone could be easily obtained from an inexhaustible source and that the Ridge prevented any possibility of erosion by the Jamna.

The country immediately south of Delhi as far as Mahrauli, Tughlakabad, and Molarband is rocky and undulating. This and the picturesque ruins abounding almost everywhere give the scene an interest not often found in the plains of India. Beyond this again to the south the country lying between the hills to the west and the Khadar already described on the east, becomes flatter and more open, and so fit for the passage down the eastern side of its length of the Agra Canal, which keeps an almost perfectly straight course at a low level down into the Palwal tahsil.

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Parallel with it, roughly speaking, is the metalled road to Agra which passes through Ballabgarh at a distance of twenty-three miles from Delhi. The soil of this part is mostly a light sandy loam which under good hands is fairly productive. The country between the Agra Road and the hills to the west, begins to get level a few miles below Badarpur; it is mostly sandy, bearing the detritus from the hill slopes, and in the rainy months is marshy and in places flooded: the passage of the water is toward the south where it debouches at the top of the Palwal tahsil.

The Jamna River.

The division of the Khadar and Bangar was doubtless caused by the erratic wandering of the Jamna from its ancient bed. The river enters the district at a height of some 710 feet, and leaves it at about 630 feet above the level of the sea, with a course within the Delhi limits of rather over 90 miles, and an average fall of between 10 and 11 inches to the mile. The general direction is nearly due south. In the floods of the rainy season the river has a considerable breadth, swelling in places to several miles, with a maximum depth of some 25 feet. In the cold weather its normal depth is said to be four feet only; the stream is only sufficient to supply the three canals which draw from it (the Eastern and the Western Jamna, and the Agra Canal) and is then fordable in many places. The banks of the river are generally low, and the bed sandy, but there is said to be a bed of firm rock under the site of the Agra Canal weir at Okhla.

Religious reverence is due to the Jamna from the Hindu, though in a less degree than to the Ganges. It passes close under the Fort at Delhi, and it must always have rounded the eastern point of the rocky "Ridge" at Wazirabad: but in the northern part of the district it appears formerly to have had a course much to the west of that which it holds at present. The drainage channel, called the Budhi *nala* which comes down under the very doors of Sonepat, would seem by the conformation of the country to have been the old bed of the Jamna and this is supported by strong and general tradition. The course of the Budhi marks off the division of the country into Khadar and Bangar. The Khadar, which, as might be supposed, lies low, may be defined as the soil which at some time or other lay either under the river or to the east of it: an interesting evidence of this is the elongated slip-like shapes of most of the eastern Bangar villages: they evidently abutted on the river and part of their areas is made up of the Khadar land deserted by it. But east of this again the land is slightly higher, also favouring the theory of a sudden change to the east. The Bangar in old times lay immediately to the west of the stream, and the ascent of the old bank is in most places plainly visible. How or when the river changed its course is not known; but there seems some probability that the change was a violent rather than a gradual one. The physical conformation above alluded to favours this; while some countenance is also given to it by the fact that the

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shapes of the village areas in the Khadar do not at all suggest a gradually elongating boundary as would probably be the case had the river gradually receded. Nor is the latter supposition rendered likely by the circumstances, so far as known, of the origin of those villages. It may at any rate be considered certain that the river once flowed beneath the walls of Sonepat, and down south by Narela, to somewhere near Azadpur on the Grand Trunk Road near Delhi, where, beginning to feel the influence of the hills, it must have turned sharply to the east. Below Delhi its course seems to have been in the same way immediately east of the Bangar bank. This, in the immediate vicinity of the city, abuts almost directly on the stream where it now runs; the soil is hard, high, and in many places rocky. The Khadar after re-appearing in the fertile low lands of Indarpat and Ghiyaspur, is again cut off at Okhla, where the Bangar bank juts boldly forward giving an advantageous site for the head of the Agra Canal. For some few miles below this the ground continues the same, but then the old river would seem to have taken again a more westerly course than the present—to have passed close by the ancient village Tilpat: then turning again south-east along a *nala* still visible, to have rounded closely the high bank on which the Khadar-Bangar villages in this part mostly stand. From Gharora to Chansa this line is very conspicuous. The Khadar south of Delhi is thus a very narrow slip of country sometimes only a single village in breadth.

Northern Dranage.

The drainage of the northern part of the district can be best described by assuming the Western Jamna Canal as the dividing line between two separate systems.

Taking the west bank tract first, it may be said that there are two main drainage works ministering to the Sonepat and Delhi villages on the western side, the first (*a*) commencing above the point where the Rohtak and Bhalaut *Rajbahas* take off just below Sirdhana Chowki, and the second (*b*) commencing at Teori and Muhammadpur below this particular point. The system (*a*) hardly interests this district at all, as there are only some six Sonepat villages above the point in question, but it is worthy of note because after keeping north of the Rohtak *Rajbaha*, passing by Gohana and circling round to the west of Rohtak, this system, under the name of main drain No. 8, comes down south to the west of Dujana and of Jhajjar, until, turning sharply to the east below Jhajjar, it gets into a natural channel which conducts it to the Najafgarh *Jhil*. The point of eventual destination of the two systems is very much the same, as the system (*b*) drains into the Najafgarh *Jhil* Escape Channel a little above Hashtsal, taking thereby a fairly direct route compared with the tremendous circumlocution of main drain No. 8. It is system (*b*) which drains all, or almost all, of the Sonepat and Delhi villages on the west side of the canal, by the help of the Najafgarh *Jhil* Drain. This system, starting as the Teori and Muhammadpur Drains,

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become the Teori Drain, then the West Juan Drain, which, after picking up several other drains, runs round Kharkhanda to Bahadurgarh where it joins the Upper Mangashpur Drain; and the two, united under the name of the Mangashpur Drain, flows from Bahadurgarh into the Najafgarh *Jhil* Drain near Hashtsal.

The Upper Mangashpur Drain is one which having picked up all the smaller drains from the villages between Rohat and Mangashpur (in Sonepat), runs down, receiving other drains from between the branches (of the Bawana) *Rajbaha*, to Bahadurgarh as above stated. Into the Mangashpur Drain near Bahadurgarh runs a Madanpur Drain from the village of that name; and the only other drain worthy of mention on this side of the canal is the Nangloi Drain, which flows from near Gangatoli Chowki to Nangloi Railway Station, crossing the Railway and getting into the Najafgarh *Jhil* Drain about two miles below Hashtsal. Whatever difficulty there may be over details, therefore, the main lines of drainage on the west side are easily understood, consisting as they do of tributaries trained into the Najafgarh Jhil Drain, which underflowing the overway for the canal at Pul Chaddar, itself discharges into the river at the point where ridge terminates on the river bank at Wazirabad.

As to the drainage of the villages on the eastern bank the Drain No. 6 plays a very prominent part all the way down. A Drain, starting at Naraina in the Panipat tahsil on the west bank of the canal, is let across the canal a little above Ahulana, and skirting Ahulana to the east joins the Budhi Jamna (which comes down in a meandering line from Panipat) at Kheri Gujar and disappears into it. The Budhi Jamna carries the drainage on southwards some six miles to Bhogipur, where it receives the Shekhpura Drain into its west bank. From Bhogipur an artificial channel, here called Drain No. 6 (which is however only the Budhi Jamna cleared out), carries the drainage on to Sonepat, after receiving into its west bank the Mahra Drain from Kailana and Mahra. Skirting Sonepat town to the east the drain continues due south to the lands of Jagdishpur, Ladpur, and Chattera Bahadurpur, where it receives from across the canal the East Juan Drain and Chattera Branch Drain. From Chattera Bahadurpur the drain (still called No. 6) following roughly the run of the high bank of the river and presumably the old bed of the Budhi Jamna, runs on to Kundli and through Narela, Singhu, Hamidpur and other villages into the Bawana Escape Channel by Kadipur. This Bawana Escape Channel takes off from the canal a little above Gangatoli Chowki and runs south-east to Kadipur. Drain No. 6 now loses its identity in the Bawana Escape, which after picking up the Wazirpur Drain (let through the canal from Wazirpur lands on the east of it) joins the Najafgarh *Jhil* Drain near its outlet to the river at Wazirabad. The drainage system on the eastern side of the canal is therefore as easily intelligible as that on the western side, the Najafgarh *Jhil* Drain playing a prominent part of recep-

tivity in both cases. Briefly, this eastern drainage means the canalisation for drainage purposes of the Budhi Jamna, after making it take a number of tributary drains either originating on the east side of the canal or trained across (by underflow) from the west side of the canal: and the turning of it into the Bawana Escape so as to reach the river proper. The Budhi Jamna seems to be marked (physically speaking) in the Pánipat tahsil and in the northern part of Sonepat tahsil much more definitely than lower down: for there it seems to work as a drain naturally without artificial clearance. It gives off into the river at different places down its course, the most notable outlet perhaps being that which joins the Jamna near Jakhauli after passing through Kheri Taga, Murthal and Kheora, and in fact draining the northern half of the Sonepat Khadar.

The Najafgarh Jhil.

Thus we are brought by natural steps to describe the Najafgarh basin into which falls not only the drainage of the district on the west of the canal but also two other streams of importance: the one is the depression by which the drainage of part of the Rohtak district joins this district at Mundela Kalan and passing Ujwah and Pindwala joins the main *jhil* at Chaola: the other is the Sahibi *Nala* which passes through the Gurgáon district having its head waters far off in Alwar. The main *jhil* receives, too, a few petty streams from the local hills. The area which drains into this Najafgarh *Jhil* is estimated at some 3,000 square miles: in years gone by an area of more than 80 square miles has been known to be submerged by the floods, but for various reasons such extensive flooding no longer takes place. As may be imagined the volume of water was more than the soil could absorb and was the cause of much sickness and fever; so it was determined to cut a channel, now known as the *Jhil* Drain, to run the surplus water into the Jamna. This work was carried out in 1838 under the direction of Captain (afterwards Sir Henry) David. This drain begins about Chaola where it is little more than a petty ditch and passes *via* Kakraula, Hashtsal and Basai, by a deep cut through the high lying Bangar into the Jamna at Wazirabad. The result of this work is that the water is drawn off too quickly for floods to be extensive, but, by means of regulators fixed in the channel, it is possible to flood an area of twenty square miles and to draw off the water in time for cultivation.

Southern Drainage Lines.

The drainage of the southern part is simple. There are three main outlets for the north Ballabgarh drainage, in its rush down eastward from the hills to the river-the Bárapulá, Tekhand and Bhuriyá *naddís*. The general flow of these water courses which is too violent in flood to be of much use in irrigation, is to the east, but here and there, owing to local peculiarities of soil, their course is changed, and they go sometimes east, sometimes south. The Bárapula drains the slopes of the hilly villages north-east of Mahraulí and crossing the Agra road under a fine bridge

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(from the number of arches of which it takes its name), runs into the Khadar just south of Humayun's tomb. The Tekhand *naddí* drains the lands west of Mahrauli, crosses the road about four miles below the Bárapula, runs over the canal by a super-passage $2\frac{1}{2}$ miles below Okhla, and then runs southward into the river. The Tekhand *nálá* receives one tributary close to the superpassage in the shape of the Arangpur *nálá* which passes under the railway and road close to the Badarpúr District Bungalow. The Bhiuryá *naddí* drains the whole of the hills lying in the vicinity of Arangpùr to its south-west and south. It is larger than the Tekhand *nálá* and in flood it was sometimes violent enough to stop the passage of travellers at the point where it crosses the Mathra Road, before it was bridged. The south Ballabgarh drainage runs more decisively south-east. The torrents and drainage channels on the part beginning from the north are as follows:—

(1). There is a small channel issuing from the hills, south of the village Meolá Máhárájpúr, which comes down on to the low ground of Fatehpur Chandílá.

(2). A much larger stream, called the Parsaun, comes down from the Badkhal hill on the same low ground in Fatehpúr Chandílá, a little to the south of the other. The water is held up by the Badkhal band but surplus water can cross the Agra Railway Line and Road under the bridges and fill the tank at Farídábád.

(3). Another stream comes down from the hills on the confines of Bhánkrí and Pálí on to the Dabuá lowlands, then through, Gházípur and Nanglá Gùjrán, touching the south-west corner of Sáran and falls into Gaunchhi *dáhar*. When in heavy flood it does not stop there but passes on to Shamápur. It has two minor tributaries, the one the Bhandwánbáj and the other the Pálí *nálá* which help to swell the volume of the torrent.

(4). A large *nálá* comes down from the hills near the Kotra Mahabatábád, the waters of which used to pass through Sarurpur, Mádalpur, etc., and help to swamp Kabúlpur Bángar: but this water is now held up by the Pákal *band*.

(5). The great Mángar *nálá*, too, sweeps past Dhauj and on to Kabúlpur Bángar, its torrent was very violent and was causing great damage, especially to the village of Tíkrí Kalan. A great embankment has been recently built at Dhauj which will probably prove a valuable conservative factor.

(6). The most southern stream is that which debouches from the hills at the village of Kot: in its course it has passed through the villages of Alampur, Sirohi, etc., and out into the marsh at Sarmatla in the

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Palwal tahsil. This *nálá*, too, has been recently blocked by a strong *band* to save the lower reaches from the damage caused by torrents.

There are no perennial streams, however, except in the rainy season; the effects are seen only in the undulating character of the ground, here and there cut into more clearly marked channels, the permanent moisture of the lower lands, and, in a few villages, a pool of standing water which though in dry seasons disappears altogether, in wet ones swells into a *jhíl* or marsh of considerable size. As instanced above, the Agra Canal has materially altered the drainage of the east half of the Ballabgarh tahsíl. There is now no room for any considerable length of drainage flow on that side. There is an escape dug from the canal south of Tilpat opposite the place where the water of the Bhuriya *naddí* comes in, and this meanders on in a slimy *shor*-mixed stream through the low Khádar north of Bhopáni on toward Kabúlpur Kalan, where it joins the river. The want of drainage here is shown in the prevalence of *shor*, which more or less affects all the land lying in this neighbourhood.

The Western Jamna Canal.

The Western Jamna Canal has for many years been a factor of enormous power in determining the condition of the zamíndár in a large and densely populated portion of the district. It appears that the Delhi branch is a work of considerable antiquity, certainly some centuries old, and the tradition of the country-side says that after copious and long continued irrigation, the Bángar chak of the district became ruined with *reh*, that the canal was given up, and people took to wells, or to dependence on the rainfall to nourish their crops. About the year 1815 the canal water was re-introduced. In an official document of the time it was noted that several persons were ready to contract to do the excavation and clearing work necessary for this purpose, but, a "work so dignified, so popular, and so beneficial, should not fall to the share of any but the Government." It was estimated that one lakh yearly for three years would cover the expenses of the scheme, the result of which, it was hoped, would be to bring under cultivation "vast tracts now deserted." Lieutenant Blaine, the officer incharge of the work, was called away to the field by the Goorkha war; but operations must have been pushed on without great delay, for in 1819 the canal was running. After this no information is available before 1838, when a systematic clearance was made, and once again before the Mutiny. At the Regular Settlement in 1842 little damage from water logging seems to have been noticed or even apprehended, but in 1856 remissions for *shor* began, and others were made in 1858, since when till about 1890, the subject was one of constant anxiety to all officers acquainted with the state of the case.

The matter was taken up during the settlement operations of the seventies by Mr. Maconachie whose efforts resulted in a

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realignment of the canal by which irrigation has been brought to the highlying land and cut off from the depressions which were terribly water-logged. The original canal was constructed and aligned at a time when canal principles were not fully understood, so that, instead of running down a ridge, the main channel ran down a valley: by the realignment, the canal now passes down the main Bangar ridge, but of course crosses the heads of natural depressions to prevent deviations from the straight: in such localities drains are passed under the canal as noted in the foregoing remarks about the drainage. The effect of the realignment, which was finished in 1866, has been very marked, water-logged villages having prospered both in health and wealth. From the main canal take out many *rajbahas* numbered, as a rule, according to the order of their construction and named after the tail village to which they lead or the head village in which their headworks are situate. (See Chapter II A.)

Around the city of Delhi the canal affords irrigation to numerous orchards and vegetable gardens, and its lowest reach, which is held up by a regulator, is the recognised resort of the *dhobis* and urchins of the Sadr Bazar. Eventually surplus water is passed down a channel which connects with the Agra Canal at Jasola, but there is seldom sufficient water to reach so far.

The Agra Canal.

The Agra Canal takes out of the Jumna at Okhla about 8 miles below Delhi: a tablet at the interesting headworks explains that the canal was opened by Sir William Muir, Lieutenant-Governor of the North-Western Provinces, in 1874. The canal passes straight down through the Ballabgarh Bángar into the Palwal Tahsil and thence into the United Provinces. It was constructed at the expense of the United Provinces Government for irrigation in that province, so the managing staff do not belong to the Punjab services: there is little irrigation in this district—about 600 acres all told. The only important features are the protective *bands* at the headworks, the super-passage of the Tekhand stream at Ali, and the syphon by which the Bhuriyá torrent is allowed to pass towards the Jamna: the pressure of this last-named torrent is so strong that, as a precautionary measure, the canal authorities have to keep at the critical times as much as nine feet of water in the canal over the tunnel.

Geology.

This district being a small one and mostly an alluvial plain the geological interest is naturally focussed on the hill tract. An account of the Geology of the Aravelli region is to be found in Volume XIV, part 4 of the record of the Geological Survey of India.

"The greater part of the district lies on the alluvium, but the small hills and ridges at and to the south of Delhi consist of outliers of Alwar quartzite belonging to the Delhi system of the Transition group of Peninsular India. The ridge at Delhi is composed of the same rock."—(Hayden).

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The noticeable minerals of the district, so far as known, are stone, crystal, *kankar* and chalk ; though it is said the quartz-like formation of the hills renders the existence of gold not impossible, and the known presence of crystal at Arangpúr has been alluded to as favouring the probability. The quartz-like kind of stone is hard, and not easily worked, except for uses not requiring a delicate shape. It is seen at its best in many of the old buildings round Delhi, where it fitly harmonises with the sombre dignity of the Pathan style, and is now used regularly for buildings of all kinds: the Ridge itself is now scored with quarries. There is also a sand-stone found in the hills near Ballabgarh, which is soft and looks handsome when worked up: the Raja's palace, now the Tahsil at Ballabgarh, shows some very pretty pieces of this work in pillars and arches.

The only place where crystal has been brought to the surface is in the limits of Arangpúr, a hill village about ten miles south of Delhi. A mine here was first started, it is said, a hundred years ago by the Rajah of Ballabgarh who went to considerable expense in digging out and sending for sale a supply of the mineral. Most of the pieces, however, were small octagonal blocks of no great commercial value, and after this one attempt the Raja gave up the enterprise and closed the mine. After the Mutiny, a Khatri of Delhi took a contract for working it, but, after spending some Rs. 1,500 in trying to find the crystal, gave up the attempt and his contract also. The locality of the mine is rather inaccessible; it lies to the south-west of the village, at a considerable distance from the main road. Dr. Thompson, in his report on rock crystal mines, says that "the crystal does not occur in its primitive position, but in a secondary deposit of silicious breccia, very highly impregnated with iron; each crystal is cased in a sheath of haematite. As we go downwards the rock becomes less ferruginous, and lower still is met with in pieces of pure quartz, embedded in a matrix of almost pure white clay".

Kankar is found extensively throughout the district and quarries are opened wherever most convenient for the work in hand. Very little digging is required to reach the beds, and in some of the channels of the hill streams it comes out on the surface. The chief element in its cost is that of carriage and transport to the place where it is required for use. It is not appropriated for roads in this district so extensively as in others, where it is the only material available. Macadamite is also used, and the station roads are many of them laid with *bajrí*, a reddish gravelly *kankar* found in the beds of hill torrents and such like places. *Bajri* is cheaper than *kankar*, but is not so durable and softens more under heavy rain.

Chalk is either worked or known to exist in Kasùmpùr, Mahrauli, Malikpur, Kohí and Arangpùr. It is dug out of a rude mine made by sinking a shaft 30 or 40 feet deep, and five or six feet in diameter, and then driving tunnels in all directions horizontally

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at the bottom. The blocks (*data* or *dher*), which are turned out whole, are sold on the spot; the smaller pieces (*tikyá*) are washed and dried and then sold for whitening. The local idea makes stone fuse into chalk by a kind of subterranean ignition. The product is of some value, but the industry is a small and unimportant one.

Flora.

The following remaks are based on a note supplied by Mr. Locke, the Superintendent of the Delhi Municipal Gardens: –

The finer of the timber and shade trees that thrive in the district are not abundant, and are only found in any quantities in places where they are afforded protection from grazing cattle when in the young stages of growth.

In the uncultivated tracts Salvadora Persica (*jál*) and Butea Frondosa (*dhák*) predominate, the last-mentioned making the jungle beautiful with its bright scarlet flowers during the flowering season. The landscape during the hot season is scarcely pleasing, except for the large trees (and these are often badly mutilated when fodder is scarce). Vegetation is scanty, as every green plant that is suitable for fodder is speedily discovered by cattle, only a few genera such as Capparis, Asclipias, Argemone, etc, which are of no use as fodder, escaping. But a few days after the first monsoon shower the view is completely changed. Seeds of annuals that have laid dormant through the heat and drought of the hot season germinate and spring into life, herbaceous plants send up new growths and scrub developes a new foliage, completely altering the appearance of the country; if it were not for the few isolated clumps of the wild date (Phoenix Sylvestris), which, to a small extent, imparts a tropical appearance to the view one might easily imagine oneself gazing on rough undulating park scenery in a temperate climate.

The principal timber and shade trees Acacia Arabica (*Kikar*), Tamarix Indica (*farash)* Melia Azadirachta (*ním*), Melia Azadarach (*bakain*), Ficus Religiosa (*pipal*), Ficus Indica (*bar*), Salvadora Eleoides (*jál*), and Butea Frondosa (*dhák*), may be said to be indigenous, while Ficus Glomerata (*gúlr*), Cedrela Toona (*tún*), Dalbergis Sisso (*shisham*), Albizzia Lobbek (*siris*), Tamarindus Indica (*imli*), Eugenia Jamboolana (*Jáman*), Morus Indica (*khatta*), are commonly planted either as ornamental or shade trees.

Besides the above mentioned there are a number of ornamental trees which have been introduced, and good specimens of the following may be seen in the different gardens round the town:— Eucalyptus sp: Swetenia Mahogany, Grevillia Robusta, Alstonia Scholaris, Piterospermum Acerifolium, Phyllanthus Emblica, Bombax Malabarica, Polyalthya Longifilia, Putranjiva Roxburghii, Casuarina Equisetifolia, Mimusops Elengi, Mimusops Kauki, Lagersterce Miaflos Regina, Cassia Fistula, Poingemia Glabra, Poinciana Regia, Salix Babylonica, Salix Tetrasperma, Cupressus Sempervirens, Cupressus Funebris, Thuja Orienatlis, Pinus Longifolia.

Of the palm tribe the only representative growing wild is the wild date (Phoenix Sylvestris) or *khajúr* and a few plants of Borassus Flabelliformis (*tári*), are to be found growing near Delhi, but these have obviously been planted by hand.

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Of the palms introduced into gardens the following thrive well :—Phoenix Reclinata, Phoenix Rupicola, Livistona Maritiana, Livistona Rotundifolia, Calamus Roxburghii, Arenga Saccharifera, Oreodoxa Regia, Chamerops Excelsa, Raphis Flabelliforms, and Sabal Mexicana. Only Livistona Maritiana produces fertile seed.

Of parasitic plants Cuscuta Reflexa (*amar bel*), a trailing convolvulus grows wild in the jungle: when it obtains a footing in a garden, it is extremely difficult to eradicate. A smaller species of Cuscuta is also found and Loranthus Longiflorus (*bandá*) is another troublesome pest.

The latter attacks the *pipal* chiefly and is not very conspicuous, except when in flower : then its bright orange-scarlet flowers are distinctly ornamental. It cannot be regarded as a true parasite, as it has green foliage and can assimilate carbon dioxide on its own account.

The aquatic plants Trappa Bispinosa (*singhárá*) or water chestnut is extensively grown in the district for its fruit which is sold to great profit in the bazars. The lotus (Nelumbium Speciosum) is common in tanks ; its fleshy rhizomes and seeds are eaten. The bulrush (Typha Latifolia) thrives in tanks; its stem and dried foliage are used for thatching and packing. A semi-aquatic aroid, Colocasia Antiquorum (*aruí*), is cultivated for its edible roots. A species of water lily, evidently Nymphea Stellata, is to be found in tanks near Delhi, and another similar plant of botanical interest, Elodea Canadenis, is common. The transparent leaves of this latter plant when placed under a microscope show plainly the circulation of the protoplasm and chloroplastids in the leaf cells, making it of great interest to any one interested in the physiology of plants. Of the ornamental aquatics grown in gardens Cyperus Papyrus, Cyperus Alternifolius, and Echornia Speciosa are worthy of mention. The common water-cress, Nasturtium Officinale, is also grown for European consumption.

Of fibre producing plants the following are either found growing wild or are cultivated especially for their fibre :—Hibiscus Cannabinus (*san*), produces a good strong fibre of an average length of 5 feet. It is used largely for making ropes for local use, such as *charsa* ropes, and ropes for bullock carts. It is usually cultivated amongst irrigated crops and needs a regular supply of water during the growing period. Crotalaria Juncea (*saní*) is also extensively cultivated in a similar fashion : its fibre is somewhat superior to the first-mentioned.

Of medicinal plants there are a large number. Aegle Marmelos (*bel*) is given prepared in different ways in cases of dysentery. Of Cassia Fistula (*amaltás*), the bark, root and pulp of the long

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seed pods are used medicinally, the last-mentioned being a strong purgative. The pulp of the seed pod of the *imli* (Tamarindus Indica) is used as a laxative medicine and the powdered seeds are used in cases ot rheumatism. The leaves and buds of Grewia Asiatica (*fálsá*) are officinal. The flower seeds and roots of Althea Rosea (*gul khairú*) are used medicinally in cases of fever and dysentery. The bark of the *nim* is officinal and oil extracted from the leaves is used in various ways. Among medicinal plants found growing wild may be mentioned the officinal Tephrosia Purpurea (*sarphonka*), which grows in large quantities on the Ridge north of Delhi city ; a preparation from its seeds is considered cooling ; Trichosanthes Dioica (*parwal or palwal*), the fruit of which before consumption is cooked and eaten ; Cotula Anthemoides (*bathúná*), an oil distilled from the flowers is used in cases of rheumatism and a strong infusion of the leaves is given as an emetic ; Tinospora Cordifolia (*gilou, sat-gilo*) Tragia Involucrata (*barhanta*), Cuscuta Reflexa (*amrbel*), and a large number of other plants too numerous to mention are also used in various ways as medicine.

Of succulents the most common are Opuntia Dillenii (*nágphan*) syn : with Cactus Indica, a South American species which has become naturalised in India, and Agave Americana (*bánskwára*), also an introduction from South America. A species of aloe, evidently *alœ vera*, has established itself wild round Delhi and is used medicinally, Opuntia Dillenii (*nágphan*) is chiefly used for protecting plants and compounds against cattle and Agave Americana (*bánskwára*) is grown largely along railway embankments with a similar object.

Among the plants growing wild in the Delhi District the following are worthy of special notice :—

Zizyphus Jujuba (*ber*) is a dwarf tree which grows sparsely in the wild state, but is carefully cultivated in groves. The fruit is much relished and is said to aid digestion if eaten directly after a meal. A lather formed by the leaves in water is used as a hair wash which is said to cause a more vigorous growth.

Zizyphus Numularia (*jhar beri*) is a small species found growing in dry rocky situations round Delhi and round the edges of fields on cultivated lands. The fruit is small and rather acid. The bush itself when dried is piled up into hedges and the leaves serve as fodder in times of scarcity.

Prosopis Spicigera *jand* is a dwarf tree which is not very common. The tree somewhat resembles the acacia, but the droop of the branches and close arrangements of the flowers on the spike render it easily distinguishable. It is a handsome tree when in flower and the seed pods when nearly ripe contain a sweet edible substance. A perfect specimen of this tree is difficult to find owing to the severe looping to which it is subjected. Tamarix Gallica (*jhao*) is found growing on moist land usually along the

edges of watercourses and *jhils*, and thriving well where the soil is saline. The stem is used for basket-making and a variety of other purposes and the young twigs are used medicinally.

Cryptostegia Grandiflora (*chabuk chari*) N. O. Asclepiadia exists in wild state but is not indigenous, it probably being a garden escape, as it is a handsome flowering creeper. It has glossy dark green foliage and bears handsome pale purple campanulate flowers about 2 inches in diameter on terminal cymes. The stem when broken exudes a thick milky latex from which rubber is formed. This plant is well worth cultivating for ornamental purposes and it is probably owing to its being so plentiful in the wild state that it is not more commonly grown in Delhi gardens. It is fond of moist situations, does not object to a saline soil, and is to be found in large quantities in the municipal *bela*. Callatropis Procera (*ák*) grows abundantly every where. Its white stem and large broadly ovate leaves, which are covered with a white woolly substance on the under surface, render it conspicuous among the other vegetation and, as it contains a white milky latex of a poisonous character, it is left severely alone by cattle.

Argemone Mexicana (*kataill*) is one of the poppy tribe which, introduced from America, has become naturalised. Adhotada Vasica (*píá pánsá*) is especially abundant on the Ridge to the north of Delhi city. The foliage has a strong smell when bruised and is not browsed by cattle. It is sometimes cultivated in gardens as an ornamental plant under the generic name of *Justicia*.

Saccharum Arundonaceum (*sarkanda*) is a tall grass common throughout the Delhi District and is to be found growing in large quantities along railway embankments, canal channels, and various belas. The stems, which often grow to a height of 16 feet, are made into articles, such as chairs, blinds and baskets. Saccharum Spontanium (*sinkh*) is a small species which is used for chicks and thatching.

Butea Frondosa (*dhak*) is indigenous and is found growing in large groves. Owing to the severe lopping it is usually found in the form of a scrubby dwarf tree, but, when it is afforded protection, it will attain a height of 30 or 40 feet. It is a handsome tree when flowering, as it bears large racemes of scarlet flowers which have earned it the popular name of "Flame of the Forest". The wood is not sufficiently tough to be used for building purposes. The branches are lopped for fodder in times of scarcity and buffaloes especially seem to prefer its foliage even when fodder of other kinds is plentiful.

Salvadora Oleoides (*Jál*). This tree is also indigenous and is to be found in large groves giving an appearance of verdure to tracts of country which would otherwise be sterile wastes: it is a stiff stunted tree rarely exceeding 15 feet in height with small linear dull green leaves much resembling those of the olive, from which it derives its specific name. It thrives well in a saline soil and its fruit, which ripens during the hot season, is much appreciated.

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Salvadora Persica (*Jál*) is of little value economically, the wood being useless ; the fruit is bitter and the leaves are of no use, except for camel fodder.

Berberis Aristata (*rasaut*) is a dense thorny shrub usually found growing along the borders of fields on cultivated lands and on dry elevated rocky situations. The leaves are small and vary in shape but are usually ovate. The plant is of considerable importance medicinally, a preparation from the root being considered beneficial in cases of stomach troubles.

Capparis Aphylla (*karil*) is extremely common, especially among the ruins of old Delhi, comprising the greater part of the undergrowth.

Capparis Horrida (*khair*) is also very common about the village waste lands.

Tribulus Terrestris (*gokgrú*) is a common weed.

So much for the scientific names and details. A layman in forestry and botany will probably be more interested to learn that the district as a whole is remarkably well wooded : in no tract, except the Delhi Darbar, does one find large blocks of cultivation where trees are not present to break the scenery, but the Kohi tract is barren owing to the heavy goat grazing. In the Northern Bangar tracts the lines of the canal and its *rajbahas* are marked by trees of all kinds, shísham, pípal, kíkar, etc : in the northern Khádar tracts are found numerous groves of *Jamoi*, the *farásh* and stretches of tamarisk. In all parts of the district *Jál karíl, khair, kíkar, nim* are found in profusion, whilst the Khádar tracts supply the various grasses for thatching, chick-making, etc. In spite of the magnitude of the city demand there is no serious fuel question as is so often found in the neighbourhood of large cities : the villagers themselves burn cowdung cakes and the reserves along the canal banks seem to suffice for the city requirements. The orchards about Delhi produce almost every kind of fruit that can be grown in this part of India.

Fauna (wild animals).

The principle wild animals to be found are the antelope (black buck) the gazelle (*chinkárá*), pig, hyena, wolf, fox, jackal, hare, monkey, and porcupine ; leopards are occasionally found in the stony ravines of the kohi tract, where they prey on the Gujar's flocks : hyena frequent the same locality. Black buck are found every where usually in small herds, but in the Najafgarh tract and in the south of Ballabgarh the herds are large, sometimes amounting to over one hundred head : chinkara are to be found in quite small herds, consisting usually of a buck and three or four does, also in the abovementioned localities. Wild pig in considerable numbers are found in the Khádar some six miles and more from Delhi : there is a local tent club (its beat extends across the river also) whose meets usually take place south of Delhi, yet there are plenty of animals in the Sonepat Tahsil where the extensive

sugarcane cultivation forms an attraction. Wolves, too, are fairly common in the Ballabgarh Khádar and *kohi*, but are seldom heard of elsewhere. Hog-deer and nílgáí exist in small numbers: they are so shy of man however, that they are seldom seen by any but the votaries of pig-sticking. Foxes, jackals and hare abound every where, affording great sport to any one with a few dogs: porcupines are common, especially about the city, where they infest the vegetable and horticultural gardens. CHAP I. A. Physical Aspects.

Monkeys (the common brown variety) resort in troops to suburban orchards and the trees along the canal banks: they do more damage to the local crops than the game animals, for the latter run risks which the inviolate monkey escapes. In the Sonepat Bangar and in the Delhi Darbar are two herds of wild cattle the progeny of domestic animals which were turned loose years ago: the local zamindars complain greatly of their depredations.

Rewards are paid for the destruction of dangerous aminals under the provincial rules: for leopards Rs. 5 are given, for male wolves Rs. 3 and female wolves Rs. 5.

The average amount of rewards paid in the three years ending 1910 was Rs. 143. The average number of deaths caused by wild animals for the same period was 3 annually.

Snakes are responsible for more deaths, the average recorded mortality from snake-bite being 15. An authority on this subject would doubtless compile a lengthy list of the different species, but the people adopt the simple classification of black (*kálá*), yellow (*pilá*) and spotted (*chitkabri*) which represents the superlative, comparative and positive degrees of banefulness. Of the poisonous snakes the cobra (*naja tripudians*) is the most common and then the karait (*Bangarus coeruleus*): of the harmless snakes the water snakes found in the *jhils* are the most numerous, the commonset being the chequered snake. Snakes.

The district is so densely populated and so fully cultivated that snakes do not thrive ordinarily in the open country side, but the purlieus of the city, the many ancient ruins of the Khandrát and the crannies of the hills supply retreats from which they cannot be effectively exterminated.

The birds of the district are of many kinds. The resident game birds consist of partridges (mostly grey, a few black), blue rock pigeons in countless flocks and sandgrouse, which as usual prefer the sandy expanses in the poorer tracts of the district. The pipal trees near the canal bungalows can generally be depended on to furnish a few green pigeons to the sportsman: bush quails are found at all seasons, but grey quails being migratory birds are more plentiful in the cold weather; peafowls are numerous about the Hindu villages especially, but as their destruction is forbidden, they can hardly be classed as game birds. Birds.

In the winter teal and duck are found wherever there is any suitable water on which they can pitch: the most notable locali-

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ties are Najafgarh, Balsuá Júán, Dobaita, where a good bag can be made by any one who "holds straight": the same *jhils* afford fair snipe shooting. Geese, both bar-headed and grey leg, are not very common, but appear in considerable numbers along the river and about Najafgarh when the gram is ripe: they are out-numbered by the cranes *kúlan* which resemble them at a distance.

Other birds are so numerous that an exhaustive list cannot well be made: their varieties and their gay plumage are noticed at once by visitors from the west. The following certainly are found:—

Barbets of several kinds, and especially the crimson breasted barbet or coppersmith; the sunbird, the Indian roller or *nilkanth*, commonly known as the blue jay; several kinds of kingfisher, the hornbill, hoopoe, nightjar, hawk, cuckoo, or brain-fever bird, *koil*, crow pheasant, parroquets, owls, and owlets of several descriptions; eagles, vultures, falcons and harriers, kites, shrikes, the black drongo or kingcrow, tree pies, mainas, starlings, aurioles, tailor-birds, crows, doves, weaver birds, bee-eaters, fly-catchers, blue-throats, robins, swallows, swifts, martins, babblers, bulbuls, and several kinds of chats, larks and wagtails. Among the water birds may be recorded the *sáras* and other herons, coot, moorhen courser, the Indian darter or snake bird, bittern, cormorants, sand pipers, plovers, terns, spoonbills, adjutants, the little grebe, blac ibis, and several varieties of storks and egrets.

Fish.

In the Jamná, the canals, the big *jhils* and the ma village tanks are found many different kinds of fish of which the principle varieties may be listed as follows:—*Máhser* (*Barbus* Tor) *rahu* (*Labeo Rohita*), *bachwa* (*Entroplichthys vacha*), mulley (*Wallago Attu*), *tengrá* (*Macrones*), *silund* (*Silundia Gangetica*), *mohi* (*Notopetrus Kapirat*,) *mirgá* (*Cirrhina Mrigala*), *kálbáns* (*Labeo Kalbasu*), *chilwa* (*Chela Gora*), *gúnch* (*Bagaríus Yavellii*).

Of these the *bachwa*, the *rohu*, the *chilwa* and the *tengra* are the best table fish. Owing to the prejudices of the Hindu tribes very little fishing is carried out in the canals and local tanks, but there are regular fishermen (*machhiárá*) who supply the city requirements from the river. The best known fishing ground is at Okhlá where the weir ensures deep water and the collection of food. There are three common modes of fishing, with the rod, net or bottomless basket (*tapia*). The fish hawkers of Delhi sell fish by the *ser* at various prices ranging from one to four annas as a rule, but at certain periods of the year, when the river is muddy, prices go up and as much as eight annas has to be paid for even inferior qualities.

The entire river is infested with crocodiles both the *gharial* (or fish eating variety) and the *magar* (a blunt nosed variety): the former are the more common. The crocodiles are responsible for occasional fatalities, but they do not often attack human beings, as the river supplies ample food often of a very gruesome nature. Turtles abound in both the river and lakes.

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Climate.

The climate of the district is what might be anticipated from its position, as lying between the plains of the Punjab and those of the more tropical parts of Bengal. The cold weather is much like that of the Punjab and there is a bleak north-west wind which makes the temperature seem lower than it actually is. On the other hand, the hot weather begins sooner by a good fortnight. Tents become unpleasant after 1, April when, if the season is a normal and favourable one, the hot wind (*lúh*) begins. During the succeeding months down to the middle or end of June, the west wind should blow moderately and equally. A violent west wind is hurtful to the crops, while an east (*a*) wind is unhealthy for men. The four months, *Phágan*, *Chet*, *Baisákh*, and *Jeth* make up the *Kharsah* season—the dry months. Then comes the *Chaumásá*—the four rainy months—*Asárh*, *Sáwan*, *Bhádon*, *Asauj*. In this period plentiful rain is expected and wished for, especially in *Bhádon* (*b*). In *Asauj* however it is getting too late for cotton and *til* (*c*). The air then, if the west wind blows, is fresh and healthy, the east wind is very debilitating and was said to produce boils and fever, and though fever is rife at this time of the year, especially if the monsoon has been a strong one, the Delhi boil which in years gone by had an unpleasant notoriety is now seldom heard of, probably on accountof the better sanitation of the city. *Asauj* brings us on to October, when the nights are beginning to get cool. Towards the end of November or the beginning of December matters begin to improve, for the *jára* or cold season has well begun. The four months *Kátik*, *Mangsir*, *Poh*, *Mágh*, bring us round again to the *Kharsah*. Rain is almost unknown in November, but is thought good for husbandry in December (*d*) as, if there is no rain, there will be heavy work for the oxen in watering the young rabi crops (*e*) and in *Poh* (*f*) though late, it is better than nothing.

Rainfall.

The average rainfall at the various tahsil headquarters during the past three decades is given in the margin. From table III of part B it will be seen that the variations are considerable. There was severe drought in 1883 and 1884 and then from 1895 on to 1907-08 the fall was constantly short. The different tahsils return figures

Detail.	1880-90.	1890-1900.	1900-10.
Sonepat ...	26·8	23·8	20·96
Delhi ...	29·9	26·1	23·51
Ballabgarh.	27·2	27·0	24·82
Mahrauli ...	...	21·46	14·92

(*a*) "If the east wind blow in *Jeth*, that is bad. If a Ját (mount and) make a horse to dance, that is bad. If a Brahmin take to wearing a knife, that is bad."

(*b*) There are many sayings in the popular vocabulary exemplifying this: "If it rains in *Hár*, it will make (the country) prosperous." "The showers of *Sáwan* are filled with pearls." "(In) the showers of *Sáwan*. dry and moist (soil) all becomes green." "If it rains in *Bhádon*, then both harvest will be (good):" while heat for *Jeth* and rain for *Bhádon* are pithily indicated as desirable in the forcible lines:—"Talk as a rule is good, but not too much; silence is good, but not too much. Rain is good, but not too much; sunshire is good, but not too much. But the more we get the better of rain in *Bhádon*, or sun in *Jeth*, or talk in our story-tellers, or silence in our wives."

(*c*) "If it rains in *Asauj*, the *til* won't give (good) oil, nor cotton trees (good) pods."

(*d*) "With rain in *Mangsir*, the wheat will be of good colour."

(*e*) "If watering is not given in *Mangsir* surely a thief has carried off the oxen."

(*f*) "If it rains in *Poh*, there will still be something of a crop, full or thin."

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which differ considerably from one another and the Mahrauli gauge, which was instituted in 1886 shows a lower figure than any, so there must be natural causes operating to cause such differences within so small a lineal area. The fact is that the heat which radiates from the stony hills and the Delhi city dispels the rain clouds and the rainfall along the cooler river line is more abundant and regular.

Notable Cyclones, Earthquakes, Floods, etc.

Destructive storms and cyclones are rare and none of importance have been recorded: crops are occasionally damaged by heavy hail storms and frequently by adverse wind when maturing. Mild earthquake shocks are occasionally felt but so far Delhi with its conspicuous antique and modern buildings has happily been spared. Floods occur in the lowlying Khadar when the Jamna rises, but since the river is fairly regular in its habits, the standing crops are seldom damaged. In other parts of the district minor swamping occurs where there are depressions which have not yet been efficiently drained. The cold wave which swept over Northern India in February 1905 is worthy of special record as an unusal occurrence, by which the standing crops were either damaged or set back.

Section B.—History.

Early History.

The history of the Delhi District previous to British rule is the history of the city of Delhi which has been, at various epochs from the time of its foundation, the seat of ruling dynasties of Rajputs, Pathans, Moghals and Mahrattas. Though possessing no peculiar qualifications from a physical point of view except immunity from river erosion and an unlimited supply of fine building stone the neighbourhood of Delhi has, from the earliest dawn of Indian History, been intimately associated with the governing race, and for the last thousand years has been, except for short breaks, the capital city of northern India. Within a distance nowhere exceeding eleven miles from modern Delhi, city after city has risen upon the ruins of its fallen predecessors until the *débris* of old buildings has been estimated to cover an area of more than 45 square miles.* First upon this list of cities stands the name of Indraprástha, a city founded probably about the 15th century B. C. by the Aryan colonists of India, when first they began to feel their way down the banks of the Jamna. The Mahábhárata tells us how the five Pándavas, Yudisthira and his brothers, leading a body of Aryans from Hastinápur on the Ganges, expelled or subdued the savage Nágas and cleared their land of forest; how they built the city of Indraprástha, and grew into a great kingdom, and how they fought and overcame their kinsmen the Kauravas. And then history loses itself again in the confused chronology of the Puránas.

The city of Indraprástha was built upon the banks of the Jamná probably somewhere near the site of the present Delhi, but

* At the northern end he breadth of the ruins is about three miles, at the southern end about six miles. Bishop Heber describes the place as "a very awful scene of desolation".

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the exact position cannot now be distinguished. Tradition connects it with Indarpat, one of the popular names for the small town and Muhammadan fort of Purāná Kila. The statement that the Nigambodh Ghát, near the old Calcutta gate of the present city, formed part of the ancient capital cannot however be regarded as founded on any authentic basis.

Yudhisthira, according to the Bhágvata Purána, was succeeded on the throne of Indraprástha by thirty generations of the descendants of his brother Arjuna, until at last the line was extinguished by the usurpation of Visarwa, minister of the last king. Visarwa's family retained the sceptre for 500 years, and was succeeded by a dynasty of fifteen Gautámas or Gotámávansas, who were in turn superseded by the great dynasty of the Mauryas, with their capital at Patna. This brings the history by one rapid stride down to the first century B. C., the peroid at which the name of Delhi first makes its appearance. The city too had been removed some miles further to the south as far as the site now occupied by the Kutb-ud-Din's mosque and the Kutb pillar. General Cunningham would appear to attribute the foundation and name of the new city to a Rájá Dilu, said to be one of the Maurya dynasty, and identifies it with Ptolemy's Daidalar. The commonest form of the old name is "Dilli". In one place, however, General Cunningham has found it spelt "Dillipur". And there is a tradition extant which attributes the foundation of the city to Rájá Dillípá, the ancestor in the fifth generation of the Pándava brothers. But this tradition may be dismissed as an ignorant invention; for Dilli is universally acknowledged to be of much later date than Indraprástha. The most popular tradition, adopted by Ferishta, and accepted as probably correct by General Cunningham is that which attributes the city to Rájá Dillu or Dhilu, who is said to have been deposed by the Sakas. All these statements culled from tradition and the Puránas, cannot be classed as authenticated history. Suffice it to say that up till the Muhammadan invasions the chronicles of the time make very scant reference to Delhi.

Tradition also gives it that Delhi was deserted for 792 years. The celebrated iron pillar at the Kutb tower * on which is incised the eulogy of Chandragupta, Vikramaditya, though originally made in the 4th or 5th century, was not removed to Delhi till 1052 A. D., when a Tomára chief brought it probably from Mathura (Muttra). The original erecter of the pillar must have been a prince having pretension at any rate to great power, for the inscription upon it records that he "obtained with his own arm an undivided sovereignty on the earth for a long period". The pillar still exists standing in perfect preservation where it was replanted, and is a proof that, though Delhi may not have been at this time a great metropolis, yet it was, at any rate, a city of considerable importance.

* This pillar is referred to by General Cunningham as the "pillar of Rájá Dhává".

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The pillar is one of the most curious monuments in India. It is a solid shaft of wrought iron† 23 feet 8 inches in length, the shaft 20 feet 2 inches, of which 18½ feet are above ground, and the capital 3½ feet. The diameter of the shaft increases from 12·05 inches at the top to 16·4 inches at the ground. Below the ground the shaft expands in a bulbous form to a diameter of 2 feet 4 inches, and rests on a gridiron of iron bars let into the stone pavement with lead. Although there are flaws in many parts, yet this hardly diminishes the wonder caused by the manufacture of this monster pillar in those early times; and it is equally startling to find that, after exposure to wind and rain for at least fifteen centuries it is unrusted and the capital and inscription are as clear and as sharp now as when it was first erected. The pillar records its own history in various inscriptions. The oldest is a deeply cut Sanskrit inscription in six lines on its western face. Mr. James Prinsep deciphered it and remarked that "the pillar is called the arm of fame (*kirtti bhuja*) of Rájá Dhává; and the letters cut upon it are called the typical cuts inflicted on his enemies by his sword, writing in immortal fame". This however is now acknowledged to be a misreading as there is no mention of a Rájá Dhává. The words really refer to a Rájá Chandrá, identified by Mr. Vincent A. Smith as Chandragupta II.* This Chandragupta at the close of a long reign during which his sovereignty overspread the greater part of Hindustan, erected the pillar as a memorial to Vishnu at a place unknown, but probably Muttra. Kumarugupta II his son and successor inscribed the pillar in or about the year 415 A.D. These are the conclusions at which Mr. Smith arrives.

Other traditions taking various forms, concur in connecting the erection of the pillar with Bilan Deo or Anang Pál, founder of the Tomárá (Tunwár) dynasty, who flourished in the eighth century. He is said to have been assured by a learned Brahman that as the foot of the pillar had been driven so deep into the ground that it rested on the head of Vasuki, King of the Serpents who supports the earth, it was now immovable, and that dominion would remain in his family as long as the pillar stood. The Rájá, doubting the truth of the Brahmans statement, ordered the pillar to be dug up, when the foot of it was found wet with the blood of the Serpent King. The iron pillar was again raised; but owing to the king's former incredulity, every plan now failed in fixing it firmly, and in spite of all his efforts it still remained loose (*dhíla*) in the ground, and this, according to these traditions, is said to have been the origin of the name of Dhili.

Our ideas as to the epoch of the Tomárá (Tunwár) dynasty have also undergone some revision. General Cunningham put the date of foundation of the dynasty as 736 A. D. but his arguments

† The pillar is usually described as of "mixed metal" resembling bronze. General Cunningham however submitted a small bit from the rough lower part of the pillar to Dr. Murray Thomson for analysis, who pronounced it to be "pure malleable iron of 7·66 specific gravity". And the same verdict was pronounced after analysis by Dr. Piercy of the School of Mines, London.

* J. R. A. S., 1697, page 13.

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rested on a misreading of some inscriptions. Further research has failed to establish the existence of any Ananga Pála prior to the Anang Pála, who inscribed on the iron pillar "in Samvat 1109 (1052-3 A. D.) Ang (Anang) Pál peopled Delhi." This was the monarch who rebuilt and adorned the city, surrounding it with a massive fort named Lál Kot,* the remains of whose walls are still believed to exist in a line of grand old ruins that circle the site of the Kutb Minár.

Just a century later Delhi was taken by Visala Deva (Vigraha-rájá), one of the Chauháns of Ajmere, from a chief of the Tomáras. The famous Prithi Ráj (or Rai Pithora) was the nephew of the conqueror and succeeded to the throne. During this reign the fort of Lál Kot was further strengthened by an exterior wall which ran round it northwards from its north-west to its south-east corner, while the old fort rose above the ground enclosed, and formed a citadel to the new fortification.† Prithi Ráj was the last Hindu ruler of Delhi. In 1191 came the first invasion of Muhammad Shaháb-ud-Dín of Ghor, and, though he was defeated by Prithí Ráj on this occasion, he returned two years later and utterly overthrew the Hindus in the great battle of Tilauri. Prithi Ráj was captured and put to death, while Delhi itself, falling during the same year into the hands of Kutb-ud-Din, one of Shaháb-ud-Din's Generals, became from that time forwards the metropolis of Muhammadan Empire in India.

During the lifetime of his master, Kutb-ud-Dín held Delhi as his Viceroy. But Sháháb-ud-Din's death was followed by the dissolution of his empire, and Kutb-ud-Din became independent sovereign of India with Delhi as his capital. He was by origin a Turki slave, and the dynasty founded by him is known as that of the Slave Kings. It is to this dynasty that Delhi owes most of its grandest ruins. The great mosque of Kutb-ud-Din was commenced immediately after the capture of Delhi in 1193, as recorded in an inscription over the inner archway of the eastern entrance. It was finished in 1196, and enlarged during the reign of Altamsh, son-in-law of Kutb-ud-Din. The famous Kutb Minár was also begun by Kutb-ud-Din about the year 1200, and was finished by the same Altamsh in 1220. The mosque consists of an inner and an outer courtyard, of which the inner is surrounded by an exquisite colonnade or cloister, the pillars of which are made of richly decorated shafts, the spoils of Hindu temples, piled one upon the other in

* J. A. S., page 151. The fort of Lál Kot is of an irregular rounded oblong form, 2¼ miles in circumference. The walls, by General Cunningham's measurements, are 28 or 30 ft. in thickness, having a general height of 60 ft. from the bottom of the ditch, which still exists in very fair order all round the fort except on the south side. About half the main walls are standing as firm and solid as when first built. Three gateways to the west and north are distinctly traceable.

The existence of a fort of this name is doubted by Mr. C. J. Campbell (J. R. A. S., Vol. 35, Part 1, p. 206) whose arguments are endorsed and supplemented by the author "The Archœology of Delhi", p. 24.

† Rai Pithora's fort is 4 miles and 3 furlongs in circuit. The wall can still be traced for a considerable distance. It appears to have been only half the height of Lál Kot.

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order to obtain the required height. As originally set up, the whole must have been thickly covered with a coat of plaster, to conceal the idolatrous emblems, unendurable to Musalmàn eyes, with which they are profusely decorated. But at the present day the plaster has fallen and left the pillars standing in their pristine beauty. Ferguson attributes these pillars to the ninth or tenth century A. D. The glory of the mosque, however, is not in these Hindu remains, but in the Kutb Minár and the grand line of arches that closes its western side, extending from north to south for about 385 feet. They are eleven in number, three greater and eight smaller. The central arch is 22 feet and 53 feet high. The larger side arches are 24 feet 4 inches wide and about the same height as the centre one, while the smaller arches are of about half these dimensions. Their general design is probably Muhammadan, but the actual building was apparently left to Hindu architects and workmen. The principle of constrction is the same as that of the Hindu dome, the building being carried up in horizontal courses as far as possible, and then closed in by long slabs meeting at the top. The whole is covered with a lacework of intricate and delicate carving, also the work of Hindu hands. Ibn Batuta, who saw the mosque about 150 years after its erection, describes it as having no equal either for beauty or extent.

The Kutb Minár stands in the south-east corner of the outer courtyard. There has been much speculation as to the origin of the Kutb Minár, whether it is a purely Muhammadan building or a Hindu building altered and completed by the conquerors. The latter is the common belief of the people, who say that the pillar was built by Rái Pithora for the purpose of giving his daughter a view of the river Jamná. General Cunningham, with more probability, insists strongly that the entire building is Muhammadan. It was probably constructed as a *Mazina* or *Muazzan's* tower, from which the call to morning and evening prayer might be heard in all parts of the town; and it was probably commenced by Kutb-ud-Din Aibak from whom it derives its name about the year 1200 A. D. The height of the Minár as it now stands is 238 feet 1 inch, with a base diameter of 47 feet 3 inches, and an upper diameter of nearly nine feet. The shaft is divided into five storeys, separated by balconies decorated with ornamental bands. The column is built of red sandstone, of which the lowest is 94 feet 11 inches in height and the highest 22 feet 4 inches, the two together being just equal to half the height of the column. The intermediate storeys are 50 feet 8½ inches, 40 feet, 3½ inches, and 25 feet 4 inches, respectively. Of these three storeys, the lowest has semi-circular fluting, the next angular fluting, and the third is a smooth cylinder. The circular shaft of the topmost storey is decorated with ornamental bands of marble and redstone; on each storey are numerous inscriptions. The plinth is 2 feet in height and is a polygon with 24 sides; and the base of a broken cupola, also 2 feet high, makes up the total of 238 feet 1 inch. A spiral staircase of 379 steps leads to the

present summit. In 1803 the cupola which formerly crowned the edifice, was thrown and the whole pillar seriously injured by an earthquake. It was repaired by Captain Robert Smith, who substituted for the fallen cupola, "a flaming Mughal pavilion" utterly out of keeping with the Patháu architecture of the pillar. This was taken down in 1847 or 1848 by order of Lord Hardinge. The summit is now surrounded by a simple iron railing. At a distance of 425 ft. due north from the pillar stands the unfinished Minár of Alá-ud-Din, commenced in A. D. 1311, which was intended to double in its proportions the Minár of Kutb-ud-Din. It reached a height of 87 feet, but at this point building ceased. The site chosen for the great mosque was that already occupied by the iron pillar of Chandragupta, which forms the centre ornament of the inner courtyard. Round the mosque are scattered the remains of the palaces and tombs, forming, as has been said, "the most interesting group of ruins which exists in India, or perhaps in any part of the world." No description, however, can be here attempted.

The house of the slaves retained the throne until 1290, when it was subverted by Jalál-ud-Dín, Khilji. The most remarkable monarch of the dynasty thus founded was Alá-ud-Din, already alluded to during whose reign Delhi was twice exposed to attack from invading hordes of Mughals. On the first occasion Alá-ud-Din defeated them under the walls. On the second, after encamping for two months in the neighbourhood of the city, they retired without a battle. Relieved from the danger of this invasion, Alá-ud-Din built the fort of Siri or Sháhpur, a little to the north-east of the Lál Kot, on the spot where he had entrenched himself to oppose the Mughals, and erected in it the celebrated palace of the thousand pillars. The house of Khilji came to an end in 1320 and was followed by that of Tughlak. Hitherto the Musalmán kings had been content with the ancient Hindu capital, altered and adorned to suit their taste. But the new dynasty had a passion for great public works, and one of the first acts of Ghiás-ud-Din, its founder, was to erect a new capital about four miles further to the east, which he called, after his own name, Tughlakábád. Selecting a rocky eminence for his site, he surrounded the new city with a magnificent wall of massive stone crowning the whole with a citadel of enormous strength. The ruins of this grand old fort present in modern days scene of utter desolation. The eye can still trace the streets and lanes of the deserted city, but with the exception of the thin smoke of a Gújar village rising in the distance, there is not a sign of life within or around. And the desolation serves perhaps to heighten the impression produced by the size, strength and the visible solidity of the stern and massive walls.

The fort is in the shape of an irregular half circle. Its base towards the south is $1\frac{1}{4}$ miles in length, and the whole circuit one furlong less than 4 miles. It stands on a rocky height, and is built of large plainly dressed blocks of stone, some of which are

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so heavy and massive that they must have been quarried on the spot. One of the largest has been measured and found to be 14 feet in length by 2 feet 2 inches and 1 foot 10 inches in breadth and thickness. The faces towards the north-west and east are protected by a deep ditch, and the long face to the south by a large sheet of water, held up at the south-east corner by an embankment. On this side the rock is scarped, and above it the main walls rise to a mean height of 40 feet with a parapet of 7 feet; behind which rises another wall of 15 feet, the whole height above the plain being upwards of 90 feet. In the south-west angle is the citadel which rises above the fort, occupying about one-sixth of its area and containing the ruins of an extensive palace. The walls, like those of Egyptian buildings, slope very rapidly inwards, and their foot is commanded by low slanting loop holes in the ramparts. The whole of this great work is said to have been constructed within two years, from 1321 to 1323; and, if this seems incredible, four years is the utmost limit, for it is admitted on all hands to have been completed during the reign of Ghiás-ud-Din, who died in 1325. Ghias-ud-Din was succeeded by his son Muhammad Tughlak, who reigned from 1325 to 1351. This is the king who is described by Elphinstone as "one of the most accomplished princes, and most furious tyrants, that ever adorned or disgraced human nature." Among other freaks more immediately concerning the city of Delhi, he three times attempted to remove the capital of his empire to Deogiri in the Dekkan. Three times did he order the inhabitants of Delhi to abandon their homes and travel to the new city, a distance of 800 miles along a road which he caused to be planted with full grown trees. On each occasion they were allowed to return, but the journeys were, of course, fraught with ruin and distress to thousands, and caused a prodigious loss of life. The state of the city under this reign is described by Ibn Batuta, a native of Tangiers, who visited the court of Muhammad about 1341. He presents just such a "picture of mixed magnifiçence and desolation as one would expect under such a sovereign". He describes Delhi as a most magnificent city, its mosque and walls without an equal on earth; but, although the king was then repeopling it, it was almost a desert. "The greatest city in the world", he says, "had the fewest inhabitants." Of the tomb of Ghiás-ud-Din Tughlak the following description occurs in the *Archæology of Delhi*:—

"It is situated in the midst of an artificial lake, fed by the overflowing of the Hauz Shamsí and by a lot of natural drains which flowed into the base of the fort, and which at one time must have formed one of its natural defences. It is surrounded by a pentagonal outwork, which is connected with the fortress by a causeway 600 feet in length, supported on 27 arches. In plan, the tomb is a square of 38½ feet interior, and 61½ feet exterior dimensions. The outer walls are 38½ feet in height to the top of battlement, with a slope of 2·333 per foot. At this rate the whole slope is 7½ feet in 38½ feet. The walls at base are 11⅓ feet thick, and at top only 4 feet; but the projecting mouldings of the interior increase the thickness of the

wall at the springing of the dome to about 6 feet or 7 feet or perhaps more, for I had no means of making measurements so high up. The diameter of the dome is about 34 feet inside and about 44 feet outside, with a height of 22 feet; the dome is of marble, striped with red-stone. The whole height of the tomb to the top of the dome is 70 feet, and to the top of the pinnacle (which is made of red stone) about 80 feet. Each of the four sides has a lofty doorway in the middle, 24 feet in height, with a pointed horse-shoe arch, fretted on the outer edge. There is a small doorway only 5 feet 10 inches in width, but of the same form, in the middle of the great entrances, the archway being filled with a white marble lattice screen of bold pattern. The decoration of the exterior depends chiefly on difference of colour, which is effected by the free use of bands and borders of white marble on the large sloping surfaces of red stone. The horse-shoe arches are of white marble, and a broad band of the same goes completely round the building at the springing of the arches. Another broad band of marble in upright slabs, 4 feet in height, goes all round the dome just above its springing. The present effect of this mixture of colour is certainly pleasing, but I believe that much of its beauty is due tô the mellowing hand of time which has softened the crude redness of sandstone as well as the dazzling whiteness of the marble. The building itself is in very good order." —*Archæological Reports, Vol. I, p.* 653.

Muhammad Tughlak added to the strength of the city by a wall stretching north-east, and enclosing all the suburbs as far as the fort of Siri erected by Alá-ud-Din, and to this quarter of the city he gave the name of Jahán-panah. By this addition the ancient town attained its utmost growth.

But the period of its decline was at hand. For the very next king, Firoz Sháh, Tughlak, transferred the seat of government to a new town, which he founded several miles to the north of the Kutb, and called after his own name, Firozábad. The buildings connected with this city appear to have extended from Humáyun's tomb on the south to the Ridge beyond the modern city on the north. The ruins, however, are very imperfect, and it is impossible to trace the exact form even of its citadel or palace, which lay just outside the southern gate of the modern city. The principal remains of this city are the Káli Masjid near the Turcoman Gate, and Firoz Sháh's Fort near the Delhi Gate. In the midst of its ruins stands the famous pillar of Asoká, better known as Firoz Sháh's *lat*, fixed upon the summit of the three-storeyed building known as Firoz Sháh's Kotila. The *lat* was brought by Firoz Sháh from spot near Khizrabád, on the Jamna near the place where that river issues from the hills, and identified by General Cunningham as being in the immediate neighbourhood of the ancient city of Srugna. It contains an inscription of the celebrated edicts of Asoka issued in the middle of the third century B. C. The inscription is in the ancient Pali form of Sánscrit, and its deciphering by Mr. James Prinsep is among the greatest triumphs of modern scholarship.

As to the population of Delhi at this period, General Cunningham thinks that that of Firozabád cannot have been less than 150,000, even if only a part of the space enclosed by it was inhabited. He would also reckon the population of old Delhi to

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b eabout 100,000, thus making up the total number of the two cities to a quarter of a milion, by most, however, this estimate will probably be considered excessive.

The history of the successors of Firoz Sháh presents a succession of fierce commotions and sanguinary broils, which devastated alike the capital and the empire at large, until, at last, during the reign of Mahmúd Tughlak, the invasion of Tamerlane burst upon the contending parties and overwhelmed them in a common ruin. After carrying fire and sword through the Punjáb, Tamerlane reached Delhi in December 1398. The King fled to Gujrat, and his army was defeated under the walls of Delhi. The city surrendered on a solemn promise of protection; and Tamerlane entering was publicly proclaimed Emperor. The promise of protection, however, availed but little. Plunder and violence, begun by the conquering army, brought on resistence; and then followed a scene of horror baffling description. The whole city was for five days given up to a general massacre, and such was the slaughter, that many streets were rendered impassable by heaps of dead. Satiated with carnage and plunder, the invaders at last retired, dragging large numbers, both of men and women, into slavery. For two months after Tamerlane's departure, Delhi remained without a government and almost without inhabitants. At last Mahmúd Tughlak regained a fragment of his former empire, but on his death, in 1414, his family became extinct. He was followed by the Sayad dynasty, which held Delhi with a few miles of territory until 1451, and then gave way to the house of Lodi. The monarchs of the Lodi family appear to have in a measure deserted Delhi, making Agra their capital. At last, in 1526, during the reign of Ibrahim Lodi, Bábar, *sixth in descent from Tamerlane, marched into India at the head of a small body of veteran soldiers, and, having defeated and killed Ibrahim Lodi, at the great battle of Panípat, advanced upon Delhi, which opened her gates to her new ruler in May 1526.

Thus ended the period of Afghan rule in Delhi. From Bábar sprang the long line of Mughal Emperors, under whom Delhi reached the zenith of her glory.† Bábar died in 1530, at Agra, which, like his predecessors, the Lodis, he seems to have made his principal residence. In consequence probably of this desertion, the city of Firozábád seems never to have recovered after its overthrow by Tamerlane in 1398, and when Humáyún, son of Bábar, determined to make Delhi his residence, he found it necessary to build or restore the fort of Purána Kilá

* His real name was Zahír-ud-Din Muhammad; Bábar, the lion, was his Tartar soubriquet.

† Tamerlane and his descendant Bábar with the dynasty that sprang from them are known as Mughals. There is little certainty as to the race to which they did actually belong. They were of Turki origin and certainly not Mughals. Indeed, Bábar, in his Memoirs, never speaks of the Mughal nation but with contempt and aversion. His mother, however, was a Mughal. The reason for this strange perversion of names seems to be that the Indians call all Northern Musalmans, except the Afghans, Mughals. They now apply the term particularly to the Persians.

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or Indrapat,* on the site of the ancient Indraprastha. Humáyún called his new fort Dín-panáh. That name, however, soon fell out of use, and the fort is ordinarily known as Puráúa Killá. In 1540 Humáyún was expelled by Sher Sháh, and this monarch entirely rebuilt the city, enclosing and fortifying it with a new wall. Delhi Sher Sháh, as the renovated town was called, extended from where Humáyún's tomb now is, to the citadel of Fíroz Tughlak already described as just outside the southern gate of the present city; and Humáyún's fort of Dín-panáh, further strengthened, formed its citadel. The materials for this work were chiefly taken from Aláud-Din's fort of Sirí, and from other buildings of the ancient city. A gate of Delhi Sher Sháh, called originally the Kábulí Darwáza, but commonly known by the name of Lál Darwáza, or red gate, is now standing, a striking but isolated building, on the road side opposite the present jail. Another work of this time was Salímgarh, the fort already alluded to as situated at the north-east corner of the place at the point where the East Indian Railway crosses the Jamna into the city. It was erected by Salim Sháh, son of Sher Sháh, in 1546.

In 1555 Humáyún regained the throne, but died within six months after his success. He was succeeded by his son, the illustrious Akbar, who ascended the throne early in 1556. During this reign and that of Jahángír, nothing of local interest is recorded: the Emperor principally resided at Agra or Lahore, while Delhi seems once more to have fallen into decay. But between the years 1638 and 1658 † king Sháh Jahán once more rebuilt it almost in its present form, and his city, still known as Sháhjahánábád, is, with a few trifling exceptions, the city of modern days. It is to Sháh Jahán also that Delhi is indebted for the great mosque, called the Jama Masjid, and for the restoration of the present western Jumna Canal. Delhi, thus restored, was the capital of the renowned Aurangzeb (Alamgír I), the greatest of the Mughal Kings, and during his reign, from 1t58 to 1707, was uniformly prosperous.

From the death of Aurangzeb began the rapid decline of the Mughal Empire, and in the struggles of the ensuing century Delhi suffered much and often. Badádur Sháh, Jahándár Sháh and Farrukhsiyar followed each other in quick succession. Farrukhsiyar was succeeded in 1719 by Muhammad Sháh, during whose reign Delhi saw under her walls for the first time the standards of the Mahratta destined afterwards to play such an important part in her history. In 1739, the Persian Nádir Sháh entered the city in triumph. On the second day after his entry a report was spread that Nádir Sháh was dead, and the Indians, encouraged by the rumour, fell upon the Persian sentries, murdering many of them. Nádir Sháh, after vainly attempting to stay the tumult,

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* General Cunningham believes that he built it entirely.

† The citadel or Palace, now known as the Fort, was begun in 1638; and the outer walls ten years later.

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at last gave the order for a general massacre. "The slaughter raged from sunrise till the day was far advanced, and was attended with all the horrors that could be inspired by rapine, lust and thirst of vengeance. The city was set on fire in several places, and was soon involved in one scene of destruction, blood and terror, * and though the massacre was at last stayed it was only to be succeeded by systematic extortion and plunder. Contributions were levied upon all, rich and poor alike, and extorted by every species of cruelty. Sleep and rest forsook the city. It was before a general massacre, but now the murder of individuals." For fifty-eight days Nádir Sháh remained in Delhi, until satisfied that nothing more could be wrung from the devoted city, and when at last he left, he carried with him a treasure in money amounting, by the lowest computation, to eight or nine millions sterling, besides jewels of inestimable value, and other property to the amount of several millions more, including the celebrated Peacock Throne. The city lay exhausted, deserted, ruined; and not till long after Nádir was gone did the court awake, as it were, from a lethargy.

It is as impossible within the limits of the present account, as it would be out of place, to attempt to trace the history of the collapse of the Mughal empire under the repeated blows dealt by Ahmad Sháh Duráni on the one hand and the Mahrattas the other. Our concern at present is only with the capital; and it must suffice o say that before the final disruption of the empire in 1760, the unhappy city was first devastated by a civil war carried on for six months by daily combats in her streets; was twice sacked by Ahmad Sháh Duráni, when all the horrors of Nádir Sháh's invasion were repeated; and lastly, what Persian and Afghán had left, was seized by the rapacious Mahrattas. Alamgír II, the last real Emperor, was murdered in 1759, and then ensued a period of unexampled confusion. Sháh Alam, an exile from his capital, assumed the empty name of king, but Delhi was a prey alternately to the Duráni and the Mahratta. At last the latter gained the day, and restored Sháh Alam to his capital in 1771. The king made one feeble effort to shake off Mahratta rule, but was utterly defeated at Badarpúr, ten miles to the south of Delhi. In 1788 the palace was permanently occupied by a Mahratta garrison, and the king remained a cypher in the hand of Sindhia until the day (September 14th, 1803), when Lord Lake, having defeated the French General of the Mahrattas under the city walls, entered and took the puppet king under British protection.

Delhi was once more attacked by a Mahratta army under Holkar in 1804, after the disastrous retreat of Colonel Monson; but was gallantly defended by a small force under Colonel Ochterlony, the British Resident, who successfully held out against overwhelming numbers for eight days, until relieved by Lord Lake.

Holkar retreated, and from this date a new epoch in the history of Delhi began. The palace remained under the

* The number of victims has been estimated from 120,000—150,000.

immediate rule of the king, but the city, together with the Delhi territory, passed under British Administration, and enjoyed a long immunity from war and bloodshed. For fifty-three years nothing occurred to break the monotony of prosperity and peace. At length, however, the calm was rudely broken in upon by the stormy events of 1857. CHAP. I. B. History.

From some months during the earlier portion of the year an uneasy presentiment is said to have prevailed among all classes of native society in Delhi, and a vague feeling of excitement in reference to some expected event, a feeling which was eagerly fomented by intrigues in the Palace, and was fed by false or exaggerated reports of the Persian war. At length the storm burst. On the evening of May 10th, occurred the mutiny at Meerut, and on the morning of the 11th, the mutinous troopers had crossed the Jamná and stood clamouring for admittance below the palace wall. The scene that followed has been too often described to need a minute relation here. Finding the Calcutta Gate * which was nearest to the river crossing closed, the troopers doubled back towards the south, and found an entrance at the Ràjghát gate in Daryáganj. The Mutiny.

Meanwhile, Captain Douglas, Commandant of the Palace Guards, Mr. Fraser, the Commissioner, and Mr. Hutchinson, Collector, had met at the Calcutta Gate. On the approach of the mutineers from within, they escaped to Lahore Gate of the palace and there were murdered. The palace was occupied by crowds of troops and the whole city thrown into a ferment of confusion. At this time almost the whole civil and non-official residents of the station had their houses within the city wall, and fell an easy prey to the insurgents. The troopers from Meerut, joined by the roughs of the city, carried murder and rapine into every house.

Soon, too, the infantry from Meerut began to arrive, and by 8 o'clock the mutineers were sole masters of every yard within the city walls, except the magazine and the main-guard just within the Kashmir Gate.

Meanwhile the news reached the cantonment beyond the ridge that overlooks the city. The troops in the station were entirely native, three regiments of native infantry, the 38th, the 54th, and the 74th, and a battery of native artillery. The 54th were marched promptly down to the Kashmir Gate and the main-guard, where a detachment of the 38th was posted. These had already in their hearts cast in their lot with the mutineers, who were then appearing on the scene. Ordered to fire on the insurgents, they responded only by insulting sneers. Nor was the conduct of the 54th much better. Several European officers were cut down either by the insurgent troopers or by men of their own regiments, and when the artillery officers entered the gate a few

* The old Calcutta Gate no longer exists. It was destroyed in the construction of the Railway.

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minutes later, they found the traces of the conflict in the dead bodies of their comrades. The insurgents, alarmed by the report of the approach of guns, had dispersed followed by the greater portion of the 54th. The guns were planted before the main-guard, and two companies of the 54th which had accompanied from cantonments, were posted as a garrison. They were now joined by the 74th, under Major Abbott, and the force, thus augmented, remained under arms all day at the main-guard, joined from time to time by the few fugitives who, almost by a miracle, escaped from the city.

The magazine stood half way between the palace and the main-guard. It was under the charge of Lieutenant Willoughby, with whom were associated Lieutenants Forrest and Raynor and six European Conductors and Commissariat Sergeants. The native subordinates fled at the first sound of an attack upon the magazine, but the nine Europeans held out bravely for some time in the hope of succour, determined to defend to the last the enormous accumulation of the munitions of war collected in the magazine. About midday an explosion was heard at the main-guard, which shook the building to its foundation. It was the powder magazine fired by Willoughby and his companions when further defence seemed hopeless. Willoughby and Forrest escaped to the main-guard. Raynor and one of the sergeants took a different direction and eventually reached Meerut. The remaining five of the nine perished in the explosion. All day long the sepoys in the cantonment, as well as at the main-guard, had been hovering on the brink of open mutiny, and were restrained only by the fear of the white regiments which were expected every moment to arrive from Meerut. But the day wore on, and no white regiments arrived, and at last the cloak was thrown off. The massacre at the main-guard was begun by a murderous volley from the 38th, fired into the midst of the English officers and fugitives from the city, among whom were several ladies. A few escaped by an embrasure in the city wall, and clambering across the ditch, sought a refuge in the direction of the cantonments. Here, however, things were but little better. Before evening the sepoys had thrown of all semblance of allegiance. The ladies and children were for a time collected in the Flagstaff Tower on the summit of the Ridge; but when the remaining guns were seized by the mutinous sepoys, and it became impossible to hold together even those who were inclined to remain faithful, no resourse remained but flight. A few officers, remaining to the last, rescued the regimental colours. And then even these were forced to fly: and every vestige of British authority was stamped out of the cantonments, as in the morning it had been from the city. All through that night and the following days the fugitives toiled on. To some the villagers gave help; others they despoiled. Many perished miserably on the road, or, unable to proceed, fell a prey to marauding bands of robbers. The remain-

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der, struggling painfully on, often assisted and sheltered by the people, and especially by the Játs, at last found a refuge in Karnál and Meerut.

Meanwhile in Delhi, some fifty Christians, European and Eurasian residents of Daryáganj, remained alive, thrust indiscriminately into a stifling chamber of the palace. For five days they remained thus confined, and on the 16th were led forth to die. A rope was thrown round the whole party so that none could escape, and thus in a courtyard of the palace, they were foully massacred. A sweeper who helped to dispose of the corpses, afterwards deposed that there were but five or six men among them; the rest were women and children. The bodies were heaped upon a cart, borne to the banks of the Jamná, and thrown into the river.

A short month later, on June 8th, was fought the battle of Bádli-kí-Saráí, and that same evening the avenging British force, sweeping the mutineers from their old cantonment and the Sabzí Mandí Bázár, encamped upon the Ridge that overlooks the city. It would be foreign to the scope of the present account to trace the history of the ensuing stage, which has been already narrated by a hundred pens. For three long fiery months it dragged on, the "Delhi Field Force" besieged upon the Ridge rather than besieging, and the communication between the city and outside being cut off, except on the north. At length, the heavy guns arriving, it was determined to carry the city by assault. The first of the heavy batteries opened fire on September 8th, and on the morning of the 14th the British force, 7,000 men in all, advanced to storm the walls defended by 60,000 mutineers. The four points of attack were the Káshmír Bastion, the Water Bastion, the Kashmír Gate and the Lahore Gate.

The attacking force was divided into four columns with a reserve. The first two columns were to storm the breach in the Kashmír Bastion and the Water Bastion, and the third to blow open the Káshmír Gate, and the fourth to clear the suburbs to the west of the city, and enter by the Lahore Gate. In advance all were the 60th Rifles, concealed in the brushwood, stretching up to within musket shot of the walls, ready to keep down the fire of the rebels, and cover the advance of columns. On September 14th, at 3 A. M., the columns had fallen in at Ludlow Castle, but during the night, the breaches had been filled with sand-bags, and the columns were obliged to wait till the fire from the guns could once more clear the way. The troops lay down under shelter, and the advance of the Rifles to the front with a cheer, was to be the signal for the cessation of the fire from the batteries, and the assault of the columns.

The following is Mr. Cooper's account of what ensued:—

"At the head of the third column stood the gallant exploding party consisting of Lieutenants Salkeld and Home of the Engineers, Sergeants Carmichael, Burgess and Smith of the Bengal Sappers, Bugler Hawthorne

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of the 52nd L. I. (who accompanied the party to sound the advance when the gate was blown in,) and eight native Sappers, under Háviládr Mádhú, to carry the bags. At the edge of the cover, the powderbags had been transferred to the European soldiers. Here stood this heroic little band, forming a forlorn hope, feeling themselves doomed to almost certain death, waiting in almost agonising suspense for the appointed signal. It came; the firing suddenly ceased, the cheer of the Rifles rang through the air, out moved Home with four soldiers, each carrying a bag of powder on his head; close behind him came Salkeld, portfire in hand, with four more soldiers similarly laden, while a short distance behind the storming party, 150 strong, consisting of—

50 H. M. 52nd L. I.,
50 Kumáon Battalion,
50 First Punjab Infantry under Captain Bailey,

followed up by the main body of the column in rear. The gateway, as in all native cities, was on the side of the bastion, and had an outer gateway in advance of the ditch. Home and his party were at this outer gate, almost before their appearance was known. It was open, but the drawbridge so shattered that it was very difficult to cross. However, they got over, reached the main gate, and laid their bags unharmed.

"So utterly paralyzed were the enemy by the audacity of the proceeding, that they only fired a few straggling shots, and made haste to close the wicket, with every appearance of alarm, so that Lieutenant Home, after laying his bags, jumped into the ditch unhurt. It was now Salkeld's turn. He also advanced with four other bags and a lighted portfire, but the enemy had now recovered from their consternation, and had seen the smallness of the party, and the object of their approach. A deadly fire was poured on the little band, from the open wicket, not ten feet distant. Salkeld laid his bags, but was shot through the leg and arm, and fell back on the bridge, handing the portfire to Sergeant Burgess, bidding him light the fusee. Burgess was instantly shot dead in the attempt; Sergeant Carmichael then advanced, took up the portfire, and succeeded in the attempt; but immediately fell mortally wounded. Sergeant Smith seeing him fall, advanced at a run, but finding the fusee was already burning, threw himself down into the ditch, were the bugler had already conveyed Salkeld. In another moment, a terrific explosion shattered the massive gateway, the bugle sounded the advance, and then with a loud cheer, the storming party was in the gateway, and, in a few minutes more, the column, and the Káshmír Gate and main-guard were once more in the hands of British troops. * The first column, under General Nicholson and the second under Colonel Jones were equally successful in carrying the breaches at the Káshmír and Water Bastions, and both columns uniting the other side, marched along the narrow lane encircling the city inside the wall, and cleared the walls, as far as the Kábul Gate. The third column, after blowing up the Káshmír Gate, pushed on to the Chándní Chauk, but were eventually forced to retire on the church. The fourth column was the least fortunate, and was forced to retreat. The retreat, however, in spite of considerable loss, was made in good order.

But now the main difficulty had been overcome. The attacking force had now entered the city, and day by day it was gradually cleared of the rebels. On the 16th September the magazine (now the Post Office) was stormed by Her Majesty's 61st Regiment with some Panjábís and Bilochis under Colonel Deacon.

* A tablet commemorating this deed of daring has been erected outside the gate.

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On the 17th the Delhi Bank House was carried, and on the 19th the line of communication between the magazine and the Kábul Gate was completed, and in a few days more the whole city was cleared of the rebels, and the capital of the Mughals was in our hands, never again to be given up to the pageant sovereign, who had exercised his dominion therein for so long.

The loss, however, was very heavy. On that famous 14th of September, 66 officers and 1,104 men were counted among the killed and wounded. Foremost on the fatal list stands the famous name of General John Nicholson. He, the life and soul of the assault, had headed the first column of attack which stormed the Kashmir bastion. Reforming his men, he entered the narrow lane behind the walls, and swept along inside, past the Mori and Kábul Gates, clearing the rebel forces from the walls. He was approaching the Lahore Gate, when fire was opened upon his column from the Burn Bastion, and from a breastwork planted across the lane. Leading on his men to attack the breastwork, he fell mortally wounded by a musketball. He was carried to the rear, his column falling back to the Kábul Gate, but he lived to hear of the complete success of the whole attack. After lingering on for a few days he breathed his last.

The King and several members of the Royál Family, on the flight of the mutineers, took refuge at Humáyun's tomb. Here, on September 21st, they surrendered to Major Hodson, who, with his own hand, in order to avoid a rescue, shot the young princes down. The King, Bahádur Sháh, was brought into Delhi and tried before a Military Commission. He was found guilty of encouraging and abetting acts of rebellion and murder, and being saved from a severer penalty by a guarantee of his life which he had received from Major Hodson at the time of his surrender, he was sentenced to perpetual banishment. He was removed to Rangoon, where he died, a pensioner of the British Government, on October 7th, 1862.

Delhi, thus reconquered, remained for some time under military authority, and owing to the murders of several European soldiers who straggled from the lines, the whole population was shortly afterwards expelled. The order of expulsion was afterwards modified, Hindus being generally admitted, but Muhammadans still rigorously excluded. This was the state of affairs when, on January 11th, 1858, the city was made over to the Civil authorities. In July 1858, Civil Courts were reopened and the city gradually resumed its wonted appearance. But even to the present day, the shattered walls of the Káshmir Gate and the bastions of the northern face of the city bear visible testimony to the severity of the cannonade of September 1857. The cantonments were constituted in 1859.

History subsequent to the mutiny.

The quelling of the mutiny and the transfer of the administration from the East India Company to the Crown paved the way to peace and development: since those stirring days the only

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events of historical importance as such as can be expected under settled methodical rule. In the year 1876 Delhi was honoured by a visit from His Royal Highness the Prince of Wales (afterwards His Majesty King Edward VII) ; during his Indian tour and in the following year was held the Imperial Assembly for proclaiming that Her Majesty Queen Victoria had assumed the title of Empress of India.

His Excellency the Viceroy (Lord Lytton) made a public entry into Delhi on December 23rd, 1876, and some days were spent in receiving and returning visits from the Ruling Chiefs who had been invited to attend. On January 1st, 1877 the Imperial Assemblage was held at the chosen spot on the Burari plain to the north of the Rajpur Cantonment and after miscellaneous entertainments, including a State Banquet (January 1st), a farewell reception of the Ruling Chiefs (January 4th), and a general review (January 5th) of the troops concentrated, the Imperial Assemblage came to an end. It had been attended by 63 Ruling Chiefs, the Khán of Kalát, the Governor-General of the Portuguese Settlements, and by the Foreign Ambassadors and Envoys. The opportunity was taken to hold a Famine Council (the Bombay Presidency being at the time famine-stricken) and a meeting of the Council of the Mayo College.

The Imperial Assemblage was held at a fitting moment. Her Majesty might have assumed the title of Empress immediately after the mutiny, but to have done so there would have given the ceremonies the semblance of a Roman triumph. The proclamation would have been associated with the story of treachery and rebellion, whereas by its postponement till the country was tranquil, the Imperial Assemblage was a festival of peace. It was, moreover, the inauguration of a greater peace to follow in that it bound the princes and the people in common loyalty to the sovereign and brought European and Native rulers and officials into close communication. The effect of the Assemblage was to convince the people of India that the promises contained in the proclamation of November 1st, 1858, would be fulfilled, that India was to be ruled for the benefit of all its inhabitants, and that there was nothing to fear, and something to hope, under the beneficent suzerainty of the Empress of India.

At the end of 1902 Delhi was again *en fête*, when not only the Ruling Chiefs of the Indian Empire were gathered together but also Their Royal Highnesses the Duke and Duchess of Connaught, accompanied by many English notables, were present at another great gathering to hear His Majesty King Edward VII proclaimed the first British Emperor of India. The Viceroy (Lord Curzon) made a State entry into Delhi on December 29th, 1902, and all the ceremonies of previous Imperial Assemblage were repeated with the addition of an investiture and State Ball. The Durbar and its concomitant pageants were on a much large scale in numbers and brilliancy, as was only to be expected by the great development

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in Railways and resources which had occurred in the interval of a quarter of a century. Sports, tournaments, an art exhibition and a review of Native State retainers lent a colour which was missed in 1877. The ceremonies closed on January 10th, 1903, with the public departures of His Excellency the Viceroy and Their Royal Highnesses the Duke and Duchess of Connaught.

The Durbar was attended by 100 Ruling Chiefs, Representatives from Australia, and South Africa, Governors and Envoys from Portuguese India, the French Settlements in India, Afghanistan, Siam, Japan, etc., and 15 members of the Consular body. The effects of this Durbar were aptly expressed in His Excellency's speech in Council on March 25th, 1903: "The idea of some persons seems to be that the Durbar was intended only to show the magnificence of the Empire and the trappings of the east. . . . . But to me, and I hope to the majority of us, the Durbar meant not a panorama or a procession. It was a landmark in the history of the people and a chapter in the ritual of the State. What was it intended for? It was meant to remind all the Princes and people of the Asiatic Empire of the British Crown that they had passed under the dominion of a new and single Sovereign, to enable them to solemnise that great and momentous event, and to receive the Royal assurance and greeting. And what its effect? They learned that, under that benign influence, they were one, that they were not scattered alone, but coordinate units in a harmonious and majestic whole."

In 1905 the old Rajpur Cantonment, north of the Ridge, which had been abandoned after the mutiny, was again occupied as a cantonment for a Native Cavalry Regiment. At the close of the same year, Their Royal Highnesses the Prince and Princess of Wales (now Their Majesties) paid Delhi an unostentatious visit and in 1907 His Majesty the Amir of Kabul included Delhi in the list of places which he visited during his tour.

At the end of 1910 His Majesty King George the Fifth intimated His Will and Pleasure to hold an Imperial Durbar at Delhi in December 1911, so the intervening months were a time of great activity. It was recognised immediately that a Durbar held by Their Imperial Majesties in person must outstrip its forerunners in pomp, pageantry, and, most important of all, in dignity. The ceremonies consisted of—

December	7th	... The State entry, Reception of Chiefs.
"	8th	... Reception of Chiefs, King Edward Memorial ceremony.
"	9th	... Reception of Chiefs.
"	10th	... Church Service.
"	11th	... Presentation of Colours.
"	12th	... The Imperial Durbar, State Dinner and Reception.

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December 13th	...	Reception of Volunteers and Indian Officers. The garden party in the Fort, the *mela* procession.
" 14th	...	The Review. The Investiture.
" 15th	...	The laying of the foundation stone of Imperial Delhi. Review of Indian Police.
" 16th	...	The State Departure.

To describe in detail these great ceremonies or the comparatively minor events, which Their Gracious Majesties honoured with Their presence, is beyond the scope of this chapter: but special attention is called to the laying of the foundation stones of Imperial Delhi in the presence of a small but select audience, a ceremony which could not be entered in the original programme. The previous State entries had been gorgeous elephant processions starting from the main railway station, but Their Imperial Majesties' State entry was cast on different lines. Arriving at the Selimgarh Station, Their Majesties came forth into the midst of their subjects from the Fort, which had been the residence of the Mughal Emperors, the glorious centre of a most dignified procession to be welcomed by the multitudes assembled from afar. The Durbar itself, of unrivalled splendour, will always remain famous in Indian History after the glories of its pageantry are forgotten for the momentous words which recreate Delhi the Capital of India.

When the Durbar was first contemplated many doubted the wisdom of His Majesty's Government in advising His Majesty to undertake the tour to India: criticisms were many: there might be dangers to Their Majesties' persons, the King's presence would belittle the prestige of the Viceroy, the people of India preferred a king who was a shadowy myth in the background, and so forth, but the wisdom of tour has been amply established by the results. The effects of the Durbar have been without doubt very far-reaching: to begin with the effects of the previous Durbars in the direction of bringing into touch rulers with rulers and rulers with ruled have been intensified, the people of India down to a very humble stratum have learnt that the King-Emperor is a reality and, moreover, a reality not to be feared but to be respected and upheld; and last, but by no means least, a wave of loyalty has passed over the country extinguishing in great measure those sparks of sedition and unrest which had been becoming obtrusive. The general message to the many races of India was a message of unity; to those who were privileged to be present the spectacle embodied dignity.

With such high ceremonial and in an atmosphere of Royal Command has the Delhi District as a separate unit of administration come to its end. On the 1st of October 1912, the Supreme Government took over the Delhi Tahsil and Mahrauli Thana, an area of 528 square miles, under direct management as an Imperial State, the rest of the old district being left to the Punjab

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Government under whose rule so great development in a period of fifty-four years had been vouchsafed. Half a century of peace has left its mark, especially on the city in the shape of Municipal buildings, factories, railways, and other developments of civilisation which are mentioned in detail in this book.

Administrative Arrangements in 1803.

On the 11th September 1803, the Mahrattas were defeated in the battle of Patparganj by General Lake; and three days afterwards the English entered Delhi as the real masters of the Mughal Empire. The tract then added to the territories of the East India Company included a considerable strip of country to the west of the river Jamna, north and south of Delhi. It was determined to assign a large portion of the territory thus acquired to King Sháh Alam and his descendants, in order to provide for the maintenance and dignity of the Royal family. The arrangements to be made were thus described in a despatch by Lord Wellesley, dated Fort William, 2nd January, 1805 :—

"The Governor-General in Council has determined to adopt an arrangement upon the basis of the following provisions :—That a specified portion of the territories in the vicinity of Delhi, situated on the right bank of the Jamna, should be assigned in part of the provision for the maintenance of the Royal family. That those lands should remain under charge of the Resident of Delhi, and that the revenue should be collected and justice should be administered in the name of His Majesty Sháh Alam, under Regulations to be fixed by the British Government. That His Majesty should be permitted to appoint a Díwán and other inferior officers to attend at the office of the Collector, for the purpose of ascertaining, and reporting to His Majesty the amount of the revenues which should be received, and the charges of collection, and of satisfying His Majesty's mind that no part of the produce of the assigned territory was misappropriated. That two Courts of justice should be established for the administration of civil and criminal justice, according to the Muhammdan law, to the inhabitants of the city of Delhi, and of the assigned territory. That no sentences of the Criminal Courts extending to death should be carried into execution without the express sanction of His Majesty, to whom the proceedings in all trials of this description should be reported, and that sentences of mutilation should be commuted. That to provide for the immediate wants of His Majesty and the Royal household, the following sums should be paid monthly in money from the Treasury of the Resident of Delhi, to His Majesty for his private expenses, Sicca Rupees 60,000; to the Heir-apparent, exclusive of certain *jagirs*, Sicca Rupees 10,000; to a favourite son of His Majesty, named Jaggat Bakhsh, Sicca Rupees 5,000; to two other sons of His Majesty, Sicca Rupees 1,500; to His Majesty's fifty younger sons and daughters, Sicca Rupees. 10,000; to Sháh Nawáz Khan, His Majesty's Treasurer, Rs. 2,500; to Sayad Raza Khán, British Agent at His Majesty's Court, and related to His Majesty by marriage, Sicca Rupees 1,000; total per mensem, Sicca Rupees. 90,000. That if the produce of the revenue of the assigned territory should hereafter admit of it, the monthly sum to be advanced to His Majesty for his private expenses might be increased to one lakh of rupees. That in addition to the sums specified, the sum of Sicca Rupees 10,000 should annually be paid to His Majesty on certain festivals agreeably to ancient usage."

According to this arrangement, the assigned tract, afterwards known as the Delhi Territory, was excluded, by Regulation VIII

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of 1805, from the operation of the General Regulations, and subject to the restrictions alluded to in the despatch already quoted, placed under the charge of an officer styled the Resident and Chief Commissioner of Delhi. The King retained exclusive Civil and Criminal jurisdiction within the Palace, consulting the Resident in important casses, while throughout the assigned territory justice was administered according to Muhammadan law by British officers, but in the name of the King, and sentences of death were referred to the King for approval. The fiscal arrangements were under the entire control of the Resident and his subordinates. This assigned territory included, with certain exceptions, the whole of the present Delhi Division (exclusive of the Ambala and Simla Districts). The chief exceptions were Sirsa and part of Hissár, held by the Bhattis, and parts of Karnál, which were in the hands of independent Sikh Chiefs. There were also other exceptions in the estates of certain noblemen, who were found by the British in possession of considerable tracts, which they held, on tenures more or less permanent, from the Delhi Kings or the Mahrattas. Such were the estates of the Rája of Ballabgarh in this district, of Jhajjar in Rohtak, and of the Begam Samru in Gurgáon. These alienations were for the time recognised by the British Government. It will be noted elsewhere in what manner the greater part of them successively, by lapse or otherwise, came under the direct British rule. In addition to the payments for the maintenance of the Royal family already detailed, which were made from the British Treasury, the Crown lands and other property denominated *taiyul*, possessed by the King and several members of the Royal family, were in no way interfered with. The income from this source amounted to about $1\frac{1}{2}$ lakh of rupees per annum.

In 1809, financial difficulties being removed by the cessation of war, the British Government increased the allowance of the Royal family to one lakh of rupees per month, this sum being payable without reference to the income of the Delhi territory. This state of things continued until 1832, when by Regulation V of that year, the office of Resident and Chief Commissioner was abolished. The affairs of the Delhi territory were to be administered in future by a Commissioner in correspondence with the Government of the North-West Provinces, the powers heretofore exercised by the Resident as Chief Commissioner being vested in the Board of Revenue and the High (Sadr) Court at Agra. By the same Act it was laid down that the Commissioner of Delhi territory and his subordinates should in their administration conform to the principles and spirit of the Regulations. This enactment put an end to the anomalous system of administration above described; and henceforth, in name as well as in actual fact, the administration passed into the hands of East India Company. The Delhi territory continued to form a part of the territory under the Government of the North-West Provinces till 1858, when after the reconquest of Delhi from the Sepoy

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Successive Residents.

mutineers, it was annexed to the newly formed Lieutenant-Governorship of the Punjab.

The first Resident of the Delhi territory was Sir David Ochterlony, who was in charge from 1803—1806. He had not been a year in office before the city was besieged by Holkar, whose large and well-appointed army was, as is well-known, successfully beaten off by a handful of Europeans and natives under the gallant leadership of their soldier-governor, until Lord Lake returned. General Ochterlony's bravery, however, was more acceptable to Government than his civil administration and in 1806 he was removed to Ludhiana, then a frontier station. His successor, Mr. R. G. Seton from Bareilly, was a man of high character and amiable temperament, but wanting in self-confidence, and in practical energy of decision. He leaned much on a stronger man than himself, Charles Metcalfe, who, on Seton's departure for Europe in 1810, was appointed to the important post of Delhi Resident. For nine years he remained in it, developing that administrative experience and vigorous practical wisdom which afterwards placed him so high on the roll of Indian names. As a mere boy he had in 1809 confronted and successfully treated with the great Ruler of the Sikhs, and the early charge of the Delhi Residency was the immediate reward of his brilliantly self-reliant management of the treaty of the Sutlej—"one of the best kept treaties of Indian History." In December 1818 he entered the troubled period of his life by transfer to Haidarábad as Resident, and Ochterlony returned for two years with Henry Middleton as Collector. In 1821 Ochterlony went to Rajputáná, and after an acting charge by Middleton, Alexander Ross was appointed in 1822 to the administration as Agent to the Governor-General. In 1823 William Fraser acted as Agent, and then Charles Elliot succeeded for a few months when he went as Agent to Farukhábád, and Charles Metcalfe came back again as Resident with control of Rájputána, and the conduct of foreign relations with Kábul and Lahore. In this capacity he was present at the memorable siege and capture of Bhartpur. In 1828 he was appointed member of the Governor-General's Council, and was succeeded by Sir E. Colebrooke. The scandal that occurred in this gentleman's time is well-known, and also the unpopular but courageous part taken in the matter by Charles Trevelyan, then acting as his Secretary. The way in which the affair is described in a native account, perhaps by an intentional euphemism, is that "in his time Rám Gopál, and others of his dependants, made bribes run high" (*rishwatsitáni ká bazár garm kiyá*). The result was that the Resident was removed. William Fraser was appointed to act, but was also removed for openly shewing sympathy with the accused. Mr. Hawkins succeeded, but as he was not acceptable to the king, Mr. Martin was appointed, and remained there till 1832, when the Residentship was abolished, and an Agency again constituted. Rájputáná was made a separate charge, leaving Delhi and the protected territory and the foreign

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relations still with the local administration. William Fraser, however, was murdered in 1835 at the instigation, as it was proved, of the Nawáb of Firozpur who met with condign punishment. Then came the long administration of Thomas Metcalfe, reaching for 18 years up to 1853. During his time, in accordance with the march of political events, and the advance of our border toward the north, the protected States were put under George Clerk, afterwards Sir G. Clerk, at Ludhiána. Hánsí, Hissár and Sirsa still remained connected with Delhi. In November 1853, Thomas T. Metcalfe died, and next month Simon Fraser became Agent and Commissioner. The tragic end of this officer, killed on the fatal 11th of May 1857, is well-known. In September 1857, when Delhi was taken, Mr. C. B. Saunders was appointed Commissioner, while Hissár, Hánsi and Sirsa were made into the separate Commissionership of Hissár under the charge of Mr. E. Brandreth, with political charge of the petty States of Dujánáh and Loháru. Patudi remained under the Delhi Commissioner.

Constitution of the district.

The Delhi territory was first divided regularly into districts in 1819. The district of Delhi, as then constituted, consisted of two *parganas*, the "northern" and the "southern." Between them they comprised the present Delhi *tahsil*, the northern portion of the present Ballabgarh *tahsil*, and a small portion now included in the Rohtak district. The greater part of the Ballabgarh *tahsil* was then independent. The present Sonepat *tahsil*, with its head-quarters at Larsauli, formed the Larsauli *pargana* of the Panipat district.

It was only transferred to Delhi in 1861. The present arrangement of the *tahsils* dates from 1862. At some time between 1848 and 1853, a considerable tract to the east of the Jamna, including (by the Census of 1853) 160 villages and an area of 193 square miles, was added to the Delhi district from the districts of Mirath and Bulandshahr. This, under the name of the "Eastern *pargana*," continued to form part of the Delhi district until the Mutiny and the transfer of the Delhi territory to the Punjab. The immediate charge of what is now the Delhi district was held first by a Principal Assistant, and subsequently by a Collector under the Resident and Civil Commissioner. The first distribution of the Delhi territory was into divisions, an Assistant being entrusted with the charge of a division. At this time Sonepat formed part of the Northern Division with headquarters at Panipat, while Delhi and part of Ballabgarh formed the central division. Gurgáon and Rohtak and the parts round these made up the southern and western divisions. In 1820 the Civil Commissionership was abolished or changed for a Deputy Superintendent on Rs. 3,000 a month, whose duties were primarily revenue; and about the same time Delhi was put under the Board of Revenue, North-West Provinces.

Tahsil arrangements.

The arrangements as to *tahsils* appear to have been as follows:—As regards Sonept there were at first two *tahsils*, both

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having their head-quarters at the town; then another, a small one, with a very poorly paid *tahsildar*, was made up at Ganaur. This was the state of things in 1835, when (1) Sonepat Bángar had a *tahsildar* drawing Rs. 50 a month and the revenue was Rs. 2,13,040; (2) Sonepat Khádar, a *tahsildar* on Rs. 50 and revenue Rs. 70,999; (3) Ganaur, a *tahsildar* on Rs. 30 and revenue Rs. 67,444. In 1836 the Ganaur *tahsil* was incorporated with the Sonepat Khádar, and the *tahsíldár's* pay was revised as follows: *Tahsildár* Bángar, Rs. 175; *tahsildár* Khádar, Rs. 125. This administration continued till 1851, when the two Pánipat *tahsils* were made one, and the same amalgamation took place in Sonepat, the one *tahsil* being called Larsauli. Larsauli then remained, with its 205 villages, in Karnál district till 1857, when it was transferred to Delhi. For Delhi the head-quarters were at first in the city, then at Najafgarh; then there were two *tahsils*, one at Mahrauli and one at Bawanah. The Bawanah *tahsil* was moved to Alipur, and after the Mutiny to Delhi. Mahrauli was given up and its villages divided between Delhi and Ballabgarh. This last, in addition to the villages thus gained, included the *ráj* villages, and those of *parganah* Páli-Pákal.

In May 1868 twenty villages, with a population of 6,990, were transferred from Gurgáon to the Ballabgarh Tahsil: in August 1868 six villages, with a population of 5,841, were transferred from Rohtak to Sonepat. In 1872 the distribution of villages among the three tahsils was as follows: Ballabgarh 282; Delhi 305; Sonepat 211. Total 798 villages.

By alluvion from the United Provinces and transfers from neighbouring districts, the number of villages had by 1880 risen to 810, but during the recent settlement operations two large estates have been split up, three have been alluviated, fourteen have been transferred by river action to the United Provinces, and small estates have been amalgamated to an extent which reduced the number of villages by twenty eight, so that there are now only 773 estates distributed as follows: Sonepat 241; Delhi 267; Ballabgarh 265.

State of Delhi District during the Mutiny.

The events of the Mutiny, so far as they are connected with the city of Delhi, have been already described: the following sketch refers rather to the district as a whole:—As early as 1855, two years before the outbreak, a seditious pamphlet was published in Delhi, called *Risála Jehad*, directly preaching a religious war against the infidels who held the country. It was supposed to have been written about 1828 by one Maulavi Muhammad Ismail, a Wahábi, and about 1850 was translated into Hindi. Seditious placards, later on, were posted in various places of the city. When the actual rising took place at Delhi on the 11th May, the king sent a letter to the Commissioner of the Agra Division, G. F. Harvey, Esquire, who had been Commissioner for a short time in Delhi some years before, telling of the outbreak and protesting his help-

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lessness. In the city, however, everything was done in his name, and orders were issued to the *zamindárs* of the district for the collection of revenue. The papers in the printed volume of the trial of the king give a lively idea of the burlesque of order and Government that went on in the imperial city of the Mughals between May and September 1857. The king was nominally at the head of affairs; he was treated with reverence in the Oriental fashion, and amused himself with recording his signature, and occasionally short autograph orders, on the numerous petitions presented, but the real power was in the hands of the soldiers. Complaints are not long wanting of their violence and unruliness; the *bania* is indignant at the summary appropriation of his goods going on, and compares the present administration unfavourably with that of the Kafirs, who, however wretched they were in religion, respected the rights of property. The *zamindárs* of some village outside, having attacked and been beaten off by their neighbours with whom they have had a long standing grudge, write in fulsome terms congratulating the king on the massacre of the hateful English, protesting their fervent loyalty, and praying for punishment on their temporarily successful rivals. The king writes, "Let the Mirza see to this," and a foraging party soon after visits both villages, to the gain probably of neither. Grain carts coming into the city are not unfrequently seized by regiments on their own account, and when enquiry is made they protest, they must do something of the kind, as they do not get their pay. This last fact is one which, as time goes on, assumes an uncomfortable prominence, and makes it necessary for the imperial dignity to stoop to such unpopular exactions as a compulsory loan. This, it need hardly be said, is followed by more complaints from the *bania*, who in return gets threatened with bodily penalties; and so matters go on; the mutineers are scarcely loyal to the 'emperor'; they quarrel among themselves for the best quarters, get little or no regular pay, but recoup themselves by plundering any person who seems weak enough to invite it and wealthy enough to be worth it. As regards matters outside, the Rájá of Ballabgarh trims to secure himself on both sides, but is hopelessly convicted of collusion with the king by letters under his own seal protesting his respectful loyalty to the Muhammadan, and his joy at the defeat of the English—so much so that a 'man he had in his own service belonging to the detested race he will not retain any longer near him.' The Nawáb of Jhajjar is as bad or worse, and the *zamindárs* throughout the district fall into lawless habits of attacking their neighbours and plundering travellers.

Noble exceptions to the general disloyalty.

Yet there are bright exceptions of men who, moved by loyalty to our government, or pity for individuals, did good service in the way of protecting and concealing fugitive Europeans and helping them on their way to safe places. A list of rewards given for such work will be found in the Settlement Report; but a few are worthy of special mention. The most illustrious instance of hardly-tried

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loyalty in the district perhaps was that of Hidáyat Ali, a *risáldár* in the native army, on leave at the time of the outbreak. This gallant fellow* took in, fed, quartered, and for more than a week protected a band of European fugitives some thirty in number, among whom was Mr. Ford, the Collector of Gurgáon. To do this within forty miles of the centre of rebellion and within reach of two days easy march of the mutineers' cavalry at Delhi, showed an unswerving loyalty which was conspicuously noted at the time, and generously rewarded after the re-establishment of order. Government presented the *risáldár* with a dress of honour, and a splendidly engraved and jewelled sword valued at Rs. 1,000 and also gave him the perpetual *jágír* of his village, Mohinah, which is assessed now at Rs. 6,000.

Another instance of courageous humanity, which was no doubt founded on, and intensified by, a personal liking for the officer concerned, was the help given by the *zamíndárs* of Isápúr, in the Delhi Dábar, to the wife and children of Mr. Nunn, Assistant Patrol in the Customs Department. For three months the *zamíndárs* of the village hid them in their houses and fed them on their own food; and this notwithstanding the known mutinous disposition of the Nawáb of Jhajjar, in whose territory Isápur then was. The reward here was ten *biswas* (or half) of the village Bákargarh adjoining, whose *zamíndárs* had set fire to a Government bungalow, and were punished accordingly. Besides this a pension of Rs. 100 each given to the four *lambardárs*.

Other cases of services more or less meritorious, were those of Bhúre Khán of Kalálí Bagh who helped and sheltered Sir John Metcalfe in his flight to Jaipur; the *zamíndárs* of Rohat who sheltered and helped on their way to Karnál a company of English fugitives; and the Kailána men higher up who did the same good office. In a garden at Kailána is the grave of a little child of Captain Fraser, Bengal Engineers, who died during that terrible flight in the May heat. On the eastern side there are sadly interesting traces of another party who must have escaped one by one from the flagstaff-tower on the 11th. The first place marked is Palla, in the Delhi *tahsíl*, some 15 miles north-east of the city, where Mrs. Peile, travelling by herself alone, and apparently on foot, got shelter, protection and assistance on her way north. Perhaps here, or a little further away, she met her wounded husband, Lieutenant F. Peile of the 38th Light Infantry, and together with Dr. and Mrs. Wood, and Major Patterson, they got help from Hardiál, a *lambardár* of Murshidpur, taking them on to

* The account locally given of the first appearance of the Collector of Gurgáon, and other persons of consequence, as fugitives is very graphic, and has no doubt had some picturesqueness added to it during the lapse of the twenty years since the occurrence of the facts on which it is founded. It begins somewhat in this fashion :—

"It was just about noon and the Risáldár Sáhib was taking a nap, when one of his men came and woke him saying—"there is a *gora* standing at some distance from the village under a tree, his head bare, and his clothes dirty, and he has a stick in his hand, and he makes signs." The Risáldár Sáhib got up at once and went out and found that this was a scout sent out by the fugitive party to see if they might come into the village, &c., &c.

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Larsauli whence they succeeded in escaping to Karnál. The *lambardár* has a certificate from Captain Peile, dated Delhi, January 1867.

General disaffection and its punishment.

Yet on the whole, of course, the dark side predominated. The district generally appears to have been mutinous, and certainly got sharply punished. The Gujar *chaukidárs* of Chandráwal burnt the civil station, and the hill Gujars broke out thieving, plundering, and, wherever they could, burning Government property. For a time disorder was rampant. But it was very short-lived; all the north part of the district was overawed by the presence of the camp on 'the Ridge,' and supplies were obtained through friendly *zamíndárs* without much difficulty. Nothing is more surprising in a small way, among the big events of that time, than the ease and rapidity with which things were settled again after the fall of Delhi. The revenue due in June 1857 was partially collected, and that due in December in full. This re-establishment of order, it may be imagined, was not effected without sharp measures. The special commission appointed for the summary punishment of offenders convicted 2,025 persons, acquitting 1,281. Of the convicts, 392 were hanged, 57 were sentenced to life imprisonment, and many more to imprisonment for shorter terms. Nor can these figures be thought to show all the punishment inflicted. The official report itself says: "It is difficult to analyse all that may have been done during that period of excitement." And there is no doubt that, though hardly anything could be too severe a retribution for the diabolical acts of cruelty that we read of, or hear of, as having been perpetrated by the mutineers and their sympathisers, the Delhi district received a lesson which will never be forgotten. As was officially said "the agrestic population had been taught to know their masters," while the city retained only one-fourth of its former population. The king himself was tried by a special commission in his own Hall of Audience, and was convicted of rebellion against the British Government, and of being accessory to "the slaughter of 49 Christians, chiefly women and children, within his palace-walls." In January 1858 a general disarming of the people took place; penal fines were levied from offending villages; and the political punishment was pronounced of transfer to the Panjab. By Act XXXVIII of 1558 the imperial city was annexed as a provincial town to the frontier province, and the firm hands of the Chief Commissioner assumed charge of the Delhi territory, which he had done so much to reconquer from the mutineers. The civil Courts re-opened in July 1858.

Development since annexation.
Table. 1 Part B.

Some conception of the development of the District since it came into our hands may be gathered from Table 1, which gives some of the leading statistics for five-yearly periods, so far as they are available; while most of the other tables appended to this

This is not quite in accordance with fact, for the Europeans were not badly provided with arms, and were not so destitute as is here said. They had tried the Chhansa ferry in vain, as they were menaced by mutineers on the other side, and the Rájpút villagers on this side were also disaffected and obstructive. They were recommended to come back to Mohinah by Náráyan Singh, a trooper of the 12th Irregular Cavalry.

work give comparative figures for the last few years. In the table it is probable that the earlier figures are not always strictly comparable, their basis not being the same in all cases from one period to another. But the figures may be accepted as showing in general terms the nature and extent of the advance made.

District officers since annexation.

The following table shows the several officers who have successively held charge of the District since annexation :—

Name.	From.	To	Remarks.
Mr. W. Clifford	14th September 1857 ...	30th September 1857	
Sir Theophilus Metcalfe	1st October 1857 ...	22nd November 1857	
Mr. P. H. Egerton ...	23rd November 1857 ...	20th March 1860	
Mr. W. C. Plowden ...	21st March 1860 ...	30th April 1860	
Mr. F. H. Cooper ...	1st May 1860 ...	26th October 1861	
Lieut. F. C. Bewsher ...	27th October 1861 .	14th November 1861	
Major Stuart Graham ...	15th November 1861 ...	16th February 1862	
Mr. F. H. Cooper ..	17th February 1862 ...	11th May 1863	
Mr. T. H. Thornton ...	12th May 1863 ...	2nd October 1863	
Mr. F. H. Cooper ...	3rd October 1863 ..	13th December 1863	
Mr. T. H. Thornton ...	14th December 1863 ..	27th May 1864	
Mr. D. Fitzpatrick ...	27th May 1864 ...	28th June 1864	
Mr. T. H. Thornton ..	29th June 1864 ...	28th September 1864	
Mr. W. H. Rattigan ...	28th September 1864 ...	3rd October 1864	
Mr. D. Fitzpatrick ...	3rd October 1864 ...	9th October 1864	
Captain C. A. MacMahon	10th October 1864 ...	2nd September 1865	
Lieut. A. Harcourt ...	2nd September 1865 ...	2nd October 1865	
Captain C. A. MacMahon	3rd October 1865 ...	1st September 1866	
Mr. T. W. Smyth ...	2nd September 1866 ...	1st October 1866	
Captain C. A. MacMahon	2nd October 1866 ..	22nd February 1867	
Mr. D. Fitzpatrick ...	22nd February 1867 ...	4th November 1868	
Major C. A. MacMahon ...	5th November 1868 ...	5th September 1870	
Mr. A. W. Stogdon ...	6th September 1870 ...	20th October 1870	
Major C. A. MacMahon ...	21st October 1870 ..	1st June 1871	
Mr. G. Knox	2nd June 1871 ...	29th February 1872	
Mr. A. H. Benton ...	1st March 1872 ..	26th March 1872	
Major R. T. M. Lang ...	27th March 1872 ...	27th May 1872	
Mr. G. Knox ..	28th May 1872 ...	10th December 1872	
Major C. A. MacMahon ...	11th December 1872 ...	22nd February 1873	
Mr. W. M. Young ...	23rd February 1873 ...	11th March 1873	
Lt.-Colonel R. Young ...	12th March 1873 ...	15th June 1873	
Major Jas. Tighe ...	16th June 1873 ...	15th January 1874	
Mr. J. Frizelle	16th January 1874 ...	13th November 1874	
Mr. T. W. Smyth ...	14th November 1874 ...	5th May 1875	
Mr. G. L. Smyth ...	6th May 1875 ...	13th May 1875	
Mr. T. W. Smyth ...	14th May 1875 ...	19th August 1875	
Mr. J. Frizelle	20th August 1875 ...	30th September 1875	
Mr. T. W. Smyth ...	1st October 1875 ...	31st August 1876	
Captain C. H. T. Marshall	1st September 1876 ..	30th September 1876	
Mr. T. W. Smyth ...	1st October 1876 ...	14th August 1877	
Mr. A. W. Stogdon ...	15th August 1877 ...	14th October 1877	
Mr. T. W. Smyth ...	15th October 1877 ...	15th April 1878	
Mr. D. G. Barkley ...	16th April 1878 ...	22nd April 1878	
Mr. George Smyth ..	23rd April 1878 ..	13th August 1878	
Lt.-Colonel F. M. Birch ...	14th August 1878 ...	11th November 1878	
Mr. G. Smyth	12th November 1878 ...	1st September 1879	
Mr. J. R. Maconnachie ...	2nd September 1879 ...	29th September 1879	
Mr. G. Smyth	30th September 1879 ...	14th November 1880	
Mr. T. W. Smyth	15th November 1880 ..	31st January 1882	
Mr. G. Smyth	1st February 1882 ...	23rd March 1882	
Major A. S. Roberts ...	24th March 1882 ...	18th April 1882	
Mr. J. R. Drummond ...	19th April 1882 ...	20th April 1882	
Mr. T. W. Smyth ...	21st April 1882 ...	17th July 1882	
Mr. A. W. Stogdon ...	18th July 1882 ...	6th October 1882	
Mr. T. Troward	7th October 1882 ...	17th December 1882	
Mr. T. W. Smyth ...	18th December 1882 ...	6th April 1883	

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Name.	From.	To.	Remarks.
Mr. G. Smyth	7th April 1883 ...	9th October 1883	
Major W. J. Parker ...	10th October 1883 ...	17th October 1883	
Mr. J. W. Gardiner ..	18th October 1883 ...	9th November 1883	
Mr. G. Smyth	10th November 1883 ...	15th July 1885	
Mr. R. Clarke	26th July 1885 ...	19th October 1885	
Mr. G. Smyth	20th October 1885 ...	21st August 1886	
Mr. A. Meredith	22nd August 1886 ...	16th September 1886	
Mr. G. Smyth	17th September 1886 ...	5th December 1886	
Mr. Denzil Ibbetson ...	6th December 1886 ...	5th April 1887	
Mr. E. O'Brien	6th April 1887 ...	10th August 1887	
Mr. W. R. H. Merk ...	11th August 1887 ...	27th October 1887	
Mr. R. Clarke	28th October 1887 ...	14th July 1890	
Mr. J. R. Drummond ...	15th July 1890 ...	16th October 1890	
Mr. R. Clarke	17th October 1890 ...	16th September 1891	
Mr. W. Chevis	17th September 1891 ...	9th November 1891	
Mr. R. Clarke	10th November 1891 ...	6th August 1892	
Mr. P. D. Agnew ..	7th August 1892 ...	6th September 1892	
Mr. R. Clarke	7th September 1892 ...	11th March 1893	
Mr. Alex. Anderson ...	12th March 1893 ...	18th May 1893	
Mr. R. Sykes	19th May 1893 ...	10th July 1893	
Mr. Alex. Anderson ...	11th July 1893 ...	21st December 1893	
Lt.-Col. C F. Massy ...	22nd December 1893 ...	18th July 1894	
Mr. J. G. Silcock	19th July 1894 ...	9th November 1894	
Captain H. S. P. Davis ...	10th November 1894 ...	2nd August 1897	
Mr. C. L. Dundas ...	3rd August 1897 ...	2nd November 1897	
Captain H. S. P. Davis ..	3rd November 1897 ...	19th July 1898	
Mr. A. Langley	20th July 1898 ...	4th September 1898	Major from 1st May 1898.
Major H. S. P. Davis ...	5th September 1898 ...	26th March 1899	
Captain M. W. Douglas...	27th March 1899 ...	6th June 1900	
Mr. T. P. Ellis	7th June 1900 ...	6th July 1900	
Captain M. W. Douglas ...	7th July 1900 ..	14th May 1901	
Captain R. M. Lowis ...	15th May 1901 ...	14th June 1901	
Captain M. W. Douglas...	15th June 1901 ...	25th March 1903	
Major F. E. Bradshaw ...	26th March 1903 ...	23rd November 1903	Major from 6th February 1902.
Major C. G. Parsons ...	24th November 1903 ..	7th July 1904	
Mr. O. Lumsden ...	8th July 1904 ...	20th October 1904	
Major C. G. Parsons ...	21st October 1904 ...	20th October 1905	
Mr. R. Humphreys ...	21st October 1905 .	5th June 1908	
Mr. E. Burdon ...	6th June 1908 ...	28th June 1908	
Mr. R. Humphreys ...	29th June 1908 ...	28th March 1909	
Mr. C. A. Barron ...	29th March 1909 ..	1st January 1912	
Major H. C. Beadon .	2nd January 1912 ...	4th June 1912	
Mr. S. M. Jacob ...	5th June 1912 ...	1st October 1912	
Major H. C. Beadon ...	1st October 1912 ...	...	

Section C.—Population.

Density of Population.

The Delhi district with 522 souls to the square mile, stands 3rd among the districts of the Punjab in the density of its total population on its total area, and even excluding the city it is 11th with 334 persons to the square mile. It is, however, only 10th in respect of density on the cultivated area, whether the total population or only the rural element be considered, the figures being 773 and 475 respectively. The pressure of the latter on the culturable area is only 380 to the square mile so that there appears to be still some room for extension of cultivation. Writing in 1901 the Deputy Commissioner (Major M. W. Douglas, C. I. E.) did not consider the district over-populated, as in an average sum of years an ordinary zamindar family of seven persons should be in a position of comfort and be able to save, except in the Dábar

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Chak of Delhi Tahsil and the riverain and báráni tracts of Ballabgarh.

Distribution of Population.

The population and density of each Tahsil is given in the margin, the density shown being that of the total population on the total area. The figures for Delhi city being included make that tahsil the most densely populated in the Punjab, except Simla and Bahrauli: if the city and cantonment population be excluded its density is only 328 to the square mile.

Tahsil.	Population.	Density.
Sonepat ...	173,345	384
Delhi ...	367,957	860
Ballabgarh...	116,302	305

The district contains 4 towns and 713 villages: the population of the former is shown in the margin. At the Census of 1911 Delhi city showed an increase of 11 per cent. over the figures of 1901 and Sonepat, Ballabgarh and Faridabad showed slight decreases. Thirty-nine per cent. of the population live in the city and towns. Two villages Najafgarh (4,004 souls) and Mahrauli (3,883 souls) are officially known as "small towns" being managed by a small committee.

Towns.	Population.
Delhi city ...	2,32,837
Sonepat ...	12,014
Faridabad ...	4,487
Ballabgarh ...	4,053

Among 713 villages the size varies greatly, from the huge estates (1) in Sonepat Tahsil yielding several thousands of rupees revenue, to the petty hamlets near the city and in the north of Ballabgarh, paying only perhaps Rs. 50 yearly. The population varies accordingly; the average village has an area of about 1,100 acres, a population of 900, and pays something over Rs. 1,500 in revenue. This fact stamps the district as much more akin in these characteristics to the thickly inhabited and heavily assessed parts of the United Provinces than to the less developed tracts of the Punjab. A glance at the map will show that the small towns are so distributed as to afford as a general rule a market not far distant from even the most retired hamlet; and, where there seems a comparative want of such a market, it will generally be found that the average size of the villages themselves is very considerable. In the point of distribution of numbers than the district is fairly well off, though, as might be expected, the thickest population is found in the richly cultivated Sonepat Khadar or in the productive lands of the canal villages. The population of the hills is naturally sparse.

Towns and villages and their character.

The towns contain as a rule one main street with well-built shops on either side, and the residential quarters are reached by narrow *mohallas*: the central street is usually a broad one fairly well paved, affording sufficient room for the tradesmen to load, unload, or display their wares. The public buildings include a

(1) Sonepat itself pays Rs. 9,400 land as revenue, Murthal Rs. 9,000, Khearah Rs. 8,250, Jakhauli Rs. 6,000, Juen Rs. 6,033.

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police thána, a hospital, a school, a post office, a committee room (grandiloquently styled a town hall) and at least one sarai. The villages, on the other hand, have much more humble pretentions: the bigger or richer villages boast of a few *pakká*-built houses, but in general a village is a conglomeration of *kacha* houses with small court-yards which have sprung up in a haphazard fashion and to which the only access is by a tortuous insanitary passage. The poorer villages, more especially in Ballabgarh Khádar, consist of tumbledown and shabby shelters with thatched roofs: but in all villages are there to be found the three necessities of social life: firstly, the place of worship, temple or *masjid*, as the case may be; secondly, the *chaupál* which is the local debating club and guest house, furnished with such humble luxuries as *chárpáís*, hookahs and an attendant; and, thirdly, the public well, usually kept in good repair by a charitable resident, where women congregate in the cool of the day and rival the debating powers of the frequenters of the *chaupál*. There is too a menials' quarters easily recognised by the squator of the surroundings. Outside the residential part of the village will be found open spaces where manure, fuel, and fodder are stacked (*gatwára*), where *gúr* is extracted, where the village artisans follow their calling, and where the brown urchins tumble over one another in the dust.

Mr. Maconachie thus describes the village of the Delhi district:—

"Nothing is pleasanter, of its kind, than to walk through a well-cultivated Ját village, in the early morning, say, in the middle or latter end of March. The season, if it has been a fairly favourable one, has started the *rabi* crops with a decently heavy winter rain *(maháwat)*, about the end of December, but since there has been fair weather, with a bright sun, and gentle west wind, and the first watering (*korwa)* has done its work, and brought on the crops to that stage when they want moisture again. The fields round the village are masses of green, interspersed here and there with line of the yellow mustard flower; near the houses the crops look darker then the others, and have a stronger growth, telling of thickly-laid manure. The wells are frequent and close, and their elevated platform enables the eye to pick them out at once in the landscape and calculate roughly how much land lies underneath. On every side the oxen are moving up and down the pretty long slope leading to the hollow which is dug out so as to give them a better purchase on the ground in making the pull to raise the water; the voices of men and boys at close intervals fill the air with the musical cry made when the *charsa* is being heaved up at the top the pull. Streams of water trickling silently along the narrow carefully earthed-up irrigation channels tell that busy work is going on, and here and there a barefooted *Jat* is alternately opening up and closing the little beds *(kiari)*, which all careful cultivators use, so as to economise the precious fluid. Spare yoke of oxen stand lazily eating straw at the mud-built manger; trees, sprinkled here and there, give at ouce v ariety and shade to the scene, which to one interested in the people is very pleasing. Several hundred acres are laboriously and finely tilled, and the sweat of the brow earns good bread. The men themselves, as before noted, are of good stature, straight-limbed, and wiry withal. Their voices are baritone, not wanting in a rough melody, and their faces are many of them comely. Draw up to them, aud unless they imagine that any thing is to be got by whining, their talk will show them fairly well-to-do, and contented."

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Physical Aspects.
Growth of population
Tabe 6 of Par B.

The figures of population for the District and Tahsils are as follows :—

Tahsil.	Population in				Percentage of increase or decrease.		
	1881.	1891.	1901.	1911	1891 to 1881.	1901 to 1891.	1911 to 1901.
Sonepat	186,835	189,490	203,338	173,345	+1·4	+7·3	−14·7
Delhi	317,802	329,547	359,008	367,957	+3·7	+8·9	+2·5
Ballabgarh	138,878	119,652	126,693	116,302	−13·8	+5·9	+8·2
District	643,515	638,689	689,039	657,604	−·8	+ 7·9	−4·6

The population in 1868 was 621,565 (333,192 males and 288,373 females) and the density 481·1 per square mile. The increase in the period 1868—81 was 3·5 per cent. and this was partly due to the increased accuracy of the census of 1881 and partly to the gain by migration. Nearly the whole of the increase was in fact in the urban population owing to the expansion of Delhi City as a commercial centre, stimulated by the extension of railway communications. The rate of increase for the District had been reduced by mortality in the tracts covered by the Western Jumna Canal. The spread of saline efflorescence had turned many fertile lands into waste and driven the owners to seek new homes in the neighbouring Districts or States, while miles of continuous swamps had the effect of enfeebling the people.

In his Census Report for 1881 the Deputy Commissioner wrote as follows regarding the increase and decrease of population :—

"The total increase in the rural population is less than one per cent. which contrasts unfavourably with the rate of increase in the town population, where it is as high as 10·4 per cent.

"The decrease in the rural population of the Sonepat Tahsil is attributed to the presence of the Western Jumna Canal and to defective drainage. In Ballabgarh Tahsil, where there is little or no canal irrigation, the population has increased by 8·5 per cent., while in Delhi, where the canal runs through a portion only of the Tahsil, the population is stationary, the increase in the more healthy tracts being probably balanced by the decrease in the tract traversed by the canal. In the Sonepat Tahsil the canal runs through the entire length of the Tahsil from north to south, and there its effect is most marked. While the decrease in the Sonepat Tahsil generally amounts to 4·9 per cent. it is much higher in villages bordering on the canal. In some of these the decrease was very marked.

"With the view of ascertaining the effect of the Western Jumna Canal on the health of the people residing in its vicinity, a census of 25 villages in the Sonepat Tahsil bordering on the canal was taken in 1877. The enumeration showed that during the 9 years 1868 to 1877, the population of these villages had decreased from 29,085 to 27,983, or by 4·4 per cent.; and that in the next four years, 1877 to 1881, there was a further decrease to 27,100, or of 3·1 per cent., making a total decrease of 7·5 in 13 years. For full details of this special census reference may be made to pp. 37-8 of the old edition of this Gazetteer, 1883-4."

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1881—1891.

The Western Jumna Canal was realigned soon after 1881, but though matters were somewhat improved by 1891 in Delhi and Sonepat, the opening of the Agra Canal in conjunction with a run of bad seasons caused a decrease of ·8 per cent. in the District population during the 1881-91 decade, but as in the former period only the rural population was affected.

1891—1901.

Delhi City ...	15,996
Delhi Tahsil ... (*Excluding City*).	13,465
Sonepat ...	13,848
Ballabgarh ...	17,041

In 1901 the effects of the realignment of the canal were more clearly shown. The District population (689,039) had increased by 50,350, or 7·8 per cent., the increase being distributed as shown in the margin. The District-born population, however, increased from 498,328 to 534,104, an increase of 35,776 only, or 7·2 per cent. In the Delhi Tahsil every assessment circle showed an increase, but in the Sonepat Tahsil several Khádar villages and more low-lying villages irrigated by the Western Jumna Canal showed decreases of population and this was attributed to swampage, the flood water accumulating round them in the rainy season.

The population of Tahsil Sonepat had nevertheless risen by nearly 7·3 per cent.

In Ballabgarh Tahsil the Khádar Circle showed a decrease of about 4 per cent. but the diluvium of some 2,000 acres was assigned as the cause of this. The population of the Ballabgarh Tahsil, as a whole, showed an increase of 5·9 per cent.

It would thus appear that the Western Jumna Canal has ceased to cause injury, the Khádar tract alone being affected by natural swampage.

1901-1911.

The decade was a disastrous one for the whole of the rural tracts, the small increase shown by the Delhi Tahsil being entirely due to city expansions. Plague was prevalent throughout the year in question and the stormy monsoons of 1908 and 1909 caused exceptional mortality. The parts of the district which were affected most seriously were the Bángar tracts where the canal irrigation keeps the temperature cool.

The fluctuations in the populations are rather interesting; for the numbers increase largely in a dry period (such as the ninetees) and decrease in years of plenty. Thus the monsoons, beneficial as they are to the crops and general prosperity of the country, have an obverse side in that they enfeeble the vitality of the people.

Migration (Table No. 8, Part B).

The following table shows the effect of migration on the population of the district according to the 1911 Census:—

Place.	Immigrants from	Emigrants to
Punjab and N. W. F.	75,601	56,150
The rest of India	84,541	50,869
The rest of Asia	372	...
Other countries	653	...
Total ...	161,167	107,019

Thus altogether the district has gained quite half a lakh of persons through migration. The more detailed statistics in Table No. 8 show that the gains are mainly in the Delhi Tahsíl, so there is little doubt that the increase is due to city expansion. In 1901 the emigrants were about the same as now in number, but there were some 6,000 less immigrants. The figures for the rest of India are undoubtedly high, the reason being that the district is right on the border of the Punjab and there is much interchange with the United Provinces and Rajputana; as is well known Delhi has much more in common with the United Provinces in its population and customs than it has with the Punjab.

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The table below shows the interchanges with the Punjab districts and dependencies :—

	Immigrants.		*Emigrants.*		Excess of Immi-grants.	Excess of Emigrants.
	Persons.	Males per 1,000.	Persons.	Males per 1,000.		
Hissár	2,435	534	1,351	523	1,084	...
Rohtak	27,154	311	17,831	259	9,323	...
Gurgáon	26,676	326	14,078	297	12,598	...
Karnál	6,663	316	9,326	283	...	2,663
Amballa	921	635	1,256	529	...	335
Patiálá	1,846	694	1,231	496	615	...
Jínd	1,373	390	1,594	461	..	221
Lahore	779	709	2,407	620	1,628	...
Amritsar	1,029	806	559	611	470	...

The district accordingly gains fairly substantially by migration within the province. It is interesting to observe that in short and distance moves the women and men respectively preponderate.

The gain by emigration is greater by 2,089 than it was in 1901.

The following statement shows the distribution by ages per mille in the District :—

Age statistics (Table 10, Part B).

Age.	Persons.	Males.	Females.
Under 5 years	109	55	54
5—10 "	120	64	56
10—15 "	124	70	54
15—20 "	104	59	45
20—40 "	328	185	143
40—60 "	171	94	77
Over 60 years	44	24	20
Total	1,000	551	449

The figures are rather interesting, as if one considers the age of 20 as that of full puberty, the statistics show that some 45 per cent. are under age, a similar percentage in their prime, whilst the remaining 10 per cent. are on the downward grade. A close examination of the statistics in Table 10 shows that longevity is more

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prevalent amongst Muhammadans and Jains than amongst Hindus, a fact which may be fairly attributed to unhealthy life in shops which so many of the Hindus especially lead. The figures, which show the varying proportions of males and females at different ages, are also of interest: amongst the small children under five years the sexes are equal, but the girls soon fall numerically behind the boys: this is especially the case after the *purdah* age is reached, so probably it is the indoor life, and drudgery withal, which shortens the women's lives and keeps their proportion down.

Vital Statistics (Table II, Part B.).

The quinquennial average in the table show that the rate of births per *mille* is steadily increasing, having advanced 2·7 per cent. in the past 20 years: the male birth-rate is generally about one per *mille* higher than the female rate, but it is quite possible that there is some laxity in the registration of female births.

The death-rate, on the other hand, is acrobatic in its incidence varying from 33·3 per *mille* in a healthy year (1897) to as much as 72·5 per *mille* in a wet year (1908) when fever has been specially rife. It is very noticeable how during the dry cycle of years the death-rate decreased in all parts of the district. The death-rate amongst females is always higher than that amongst males and the figures in Table 10 corroborate those of Table 11 in that they show that the longevity of men is greater than that of women in all creeds. This fact is the result of the more healthy outdoor lives led by the men. The amplified statistics of the annual returns show that the death-rate of Christians is greater than that of Hindus and that the death-rate of Muhammadans is again much less; the reasons are fairly obvious. The higher death-rates prevail amongst the lower classes, and the Christian converts besides being generally of the lowest castes of all show an exceptionally high birth-rate: the sweepers, *chamárs* and other low caste men employed in menial offices are almost entirely Hindus. The Muhammadans, on the other hand, are for the most part middle class artisans, who evidently live in more healthy surroundings. Furthermore, of recent years scarcity and plague have been generally in evidence in one part or another and on such occasions it is the poorest classes in their squalid homes who suffer most.

Health.

In former years owing to the defective alignment of the Western Jumna Canal and the consequent water-logging of the soil fever was exceedingly prevalent in the canal-irrigated villages, and the standard of health and vitality was materially lower than elsewhere. This fact attracted the attention of Government as long ago as 1847, when a Committee was appointed to enquire into the sanitary state of irrigated districts. The Medical Officer, Dr. Dempster, in his memorandum forming part of the report, showed that in many villages of this part, 75 per cent. of the people had disease of the spleen, and that the average proportion of the persons thus diseased to the total population of the villages, examined during the enquiry was nearly 50 per cent. In 1867

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another inquiry was instituted by the Government of India and the Report by Dr. A. Taylor, Civil Surgeon of Delhi, * showed clearly the presence of an unusual amount of spleen disease, and its close connection with the degrees of swampiness and want of drainage found in various parts. The villages enjoying the greatest advantages of irrigation were almost invariably those where the debilitating disease had assumed its most prominent form, and in para. 77 he speaks of the beneficial effect produced by the enlargement of the drainage cut from the Najafgarh *jhil* to the Jumna in 1857. In 1845 the splenic enlargements were 43 per cent. while in 1867 they were only 5·37. The flood level had sunk 3 feet, and the aspect of the people healthy and robust.

Besides fever, the *zamindars* of the canal villages complained that copious irrigation of the land brings with it, though they do not know how, impotence in the men. On this point information is of course very doubtful: it may be noticed that the earliest report on the matter, that of Mr. Sherer † said: "The unfruitfulness of women in canal villages is a subject of common remark, and the consequent difficulty of inducing other Jat families to give their daughters to the men of Panipat, and the environs of the canals generally, is very great." Dr. Taylor had also heard that sexual incapacity existed greatly among men, but that women were not barren in the same proportion. Mr. Sherer added that the women are generally more healthy than the men. Two reasons were given—the women come from other villages—often villages not irrigated from the canal—and so have a healthier stock to begin with. Secondly, they work more than the men. This sounds strange—and is only half true—but there is no doubt that the women in the canal villages look less lazy and demoralized than the men, who are indeed a very degenerate race.

The unhealthiness of the canal villages has been largely dispelled by the re-alignment of the canal. Speaking of the results of an investigation into the amount of spleen, from which the inhabitants of selected villages in the area irrigated by the Western Jumna Canal suffer, the Punjab Government ‡ observed in 1898 that the report is eminently satisfactory, as it will be seen that in the six circles into which the tract affected by the re-alignment of the canal has been divided, the amount of enlargment of spleen has distinctly diminished in four circles, has diminished somewhat in one, whilst in the sixth, the drainage of the area has been so lately carried out, that there has not yet been time for any improvement to be manifested. It will be observed that the Sanitary Commissioner is of the opinion that Dr. Dyson's statements

* Selections from the Records of the Government of Punjab and its Dependencies, New Series, No. VI.

Maconachie, paragraphs 18 and 19.

† Selections from the Records of the Government of India in the P. W. Department, No. XLII.

‡ The Secretary to Government, Irrigation Department, No. 0609, dated 8th August 1898.

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and report show that the health of the people has, on the whole, distinctly improved since the re-alignment of the canal and subsidiary drainage works have been carried out. Every effort has been, and will continue to be made, to restrict the supply of water for irrigation to the amount absolutely necessary for bringing the various crops to maturity, and it is anticipated that the opening up of the proposed new Rohtak Rajbahas, as well as the Sirsa Branch, now nearing completion, will hereafter tend greatly to the restriction of the amount of water hitherto used in the Karnal and Delhi Districts from the Western Jumna Canal. There would now seem to be good grounds for hoping that the area irrigated by the Western Jumna Canal may be so improved within a measurable distance of time as to enable it to be reported that the health of the tract is not far below the normal of the Province generally."

There is still considerable room for improvement not in the direction of further re-alignment of the canal but in the direction of draining local swamps which exist at such places as Dobaita, Sonepat, Kanjhaula, Sanauth, Sahibabad, Dahirpur, etc., when the monsoon is a full one. Statistics show that in canal villages generally the death-rate is now only about 3 per *mille* more than elsewhere but that in villages adjacent to the swamps the rate is higher.

Diseases (Table II, Part B).

It is clear from the foregoing remarks and the figures in the table that fever is the commonest disease but at the same time there can be no doubt that many deaths are erroneously returned as being from fever as the reporting chowkidars cannot distinguish clearly between cause and effect. The Civil Surgeon in 1902 remarked that "the virus of malarial fever, however propagated, kills off thousands of old, feeble and children and it saps the strength and vitality of the population."

Cholera visited the district in epidemic form in 1900, 1903, 1906 and 1908 when the deaths amounted to 383, 322, 125 and 177 respectively.

Plague made its first appearance in 1904 since when there has been recrudescence varying in degree every cold weather: with its usual predilection for colder tracts it has haunted the canal irrigated villages of the Bángar: the worst visitation was in the spring of 1908, but the people have by now realised the advantage of evacuation and will go out into huts of their own accord. The hot sun in the month of May seems to be the best cure of all. Broadly speaking, the effect of a bad plague year is to raise the general death-rate some 40 per cent.

The commonest eye diseases are granular lids and ulceration of the cornea.

The only peculiarity in the way of disease was the Delhi boil which at one time was very common and from which residents of Delhi, both European and native, used to suffer continually: it was a sore similar in its nature to those which have acquired names

after other localities in the East and its pathology was never finally determined. However since cases no longer occur with any frequency and of recent years the sanitation of the city and its environs has been improved, it is not unjustifiable to connect the disease with inferior sanitation.

Infirmities (Table 14, Part B).

In view of the more recent statistics it is hard to believe that the figure for 1881 in the table can be correct: at best there must have been some difference in the principles of classification. Blindness is evidently the principal of the infirmities and no wonder need be expressed that this should be the case when one recalls the dust and glare of the locality.

Infant mortality (Statement 11, Part B).

The male birth-rate is higher than the female and the rate of female death is higher than the male. Male children are as a rule better treated and receive more care and attention than the female children. The practice of female infanticide has long since ceased to exist.

Birth customs.

When a Hindu child is born, the midwife fixes a branch of the *nim* or *siris* tree and an iron ring above the door to keep away evil spirits. If the child is a boy the representation of a hand with outspread fingers is made with red dye ('*geru*' or '*menhdi*') on the outside wall of the house and the father at once finds out from the Brahman or priest whether the time is auspicious or not: if it is not, the Brahman suggests that some charitable offerings be made to save the family from the evil effects. The mother is kept close within the house for some ten days when the Brahman is summoned again to name the child, for which he receives a small fee in cash. The ceremony of purification (*Hawan* or *Hom*) is also performed on the tenth day called *Dasuthan*. The room where the boy was born is first *leeped* and then earthenware household vessels are changed: till this is done the house is unclean and so no one but a menial may enter. A mixture of rice, *ghí*, barley, *til*, sugar and five fruits is ground up and a little of it is thrown into a fire in the room and the mother and child are set before it.

Brahmans, fakísr and neighbours are also fed and sweetmeats are distributed on the *Hawan* day. When the purification is over, the mother generally begins to do ordinary work of the household as the period of forty days seclusion (*chilla*) is not kept among agricultural tribes except for special reasons.

Among the Muhammadans when a child is born the *mulla* (priest) calls the *báng* or *ázán* in the child's ear daily for three days. If the child is a boy generally one rupee and some cloth is given to the *mulla* and there is considerable rejoicing. On the seventh day the barber comes to shave the child's head: the mother and child are also bathed and food and sweetmeats are distributed to the relations and *kamíns*. If the child is a girl there is no rejoicing or ceremony. The boys are circumcised up to the age of eight; sweets and food are then distributed and the barber takes a fee up to five rupees for performing the operations,

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Sex statistics (Table 10, Part B.)

The number of males in every 10,000 of both sexes is shown below :—

Census of		In villages.	In Towns.	Total.
All relgions	1868	...	...	5,359
	1881	5,351	5,334	5,346
	1891	5,373	5,454	5,398
	1901	5,365	5,460	5,397
	1911	5,409	5,707	5,524
Census of 1911	Hindus	...	...	5,516
	Jains	...	...	5,405
	Muhammadans	...	...	5,483

The marginal table shows the number of females under 5 years of age to every 10,000 males as returned in the Census of 1911.

Year of life.	All religions.	Hindus.	Jains.	Muhammadans.
Under 5 years ...	4,876	4,827	4,860	4,437

There is not much to say as to the treatment of female children. They are not, as a rule, ill-treated, but they do not receive the same care and attention as sons, especially among Hindus, Muhammadans treat their daughters with the same care as their sons. Up to 5 years of age the disproportion between the numbers of the sexes is not so great as at a later age. The disproportion increases as the age increases, and it is possible that this is due to greater mortality among the females, either as the result of neglect or of disease. Females being naturally weaker than males are less able to resist the ailments of childhood, and they die in greater numbers.

Betrothal.

The first great ceremony in life after birth is the betrothal in marriage. This is made usually in very tender years; there is no minimum age. The proceedings are much the same for Játs and Gújars, the Muhammadans following the Hindus with striking similárity. Matters are thus managed. The father or other nearest relative of the girl sends a Bráhamin, or a Nái (it does not apparently matter which) out on the search for a suitable match. The Brahmin goes to some friend of his own caste (or the Nái to a brother Nái) and asks for information about a suitable bridegroom. The other will tell him of such and such a boy and get the lad to his house or elsewhere to show him to the messenger, to see that he has no bodily defect, such as lameness, deafness, being one-eyed or the like. The messenger being satisfied goes back to report to the girl's father. Then on a lucky day (*subhtith*) fixed by the *pandits*, both Nai and Brahmin will go, taking a rupee to the relatives of the girl. If they consent, the betrothal is made forthwith on the day mentioned by the *pandits*. On that day the relatives of the boy are collected, and if the family is one of position, persons of other families living near also. The boy is seated on a low seat (*chaunki*) covered with cloth; he is hand-

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somely dressed for the occasion. The Brahmin of the girl's family will make a mark (*tika*) on his forehead with *haldi* (saffron) or *roli* (a mixture of saffron and borax). The Brahmin also gives im a rupee, and places a sweetmeat or some sugar in his mouth. or this service he gets Rs. 4 from the boy's father, while his *confrere*, the barber gets Rs. 3 and it may be an old garment. or The friends also join in a feast of *shakar* (molasses), and the matter is accomplished. The amount of fee slightly varies in different tribes; it is given at the time of dismissal, and is called *bidági* or *rukhsatána*. Among the Gaurwas a cocoanut (*náriel*) is given with the rupee to the boy, and this is done also by the Rájpúts, Sainis and some others. The Brahmins follow the proceedings throughout like the Gújars. The Shaikhs say they have only a verbal agreement without any particular ceremony. Meos have slight variations from the Gújars in details, but none of importance. The expense here is almost entirely on the side of the boy's father, who provides the entertainment for his friends, and the fees for the ceremonial messengers.

Marriage.

Marriage should follow betrothal in the first or third, or fifth subsequent year. The even years are considered unlucky. It is considered disgraceful if a girl is not married by the time she is 15, and it is not the custom to have her married before she is 5. The Játs say they think the girl should always be married by the time she reaches 11 years of age. The boy must be 5, but above this there is no limit as to maximum; he will marry when he can. As a rule, a man has only one wife, but this is rather the limit of cost than of fancy or custom: a rich man will not seldom take a second wife, while the Meos, and probably all Muhammadans take two or even three, commonly, if they have the means: a poor man will seldom take a second wife unless his existing wife is barren or the new wife is the widow of a relative and he has already to support her. Polyandry is unknown. Divorce is rare amongst Muhammadans and is not allowed amongst Hindus.

The ceremonial form of marriage.

The first marriage is called by the Játs and other Hindus *shádi* and it is practised by almost all Hindu tribes in the same way called *phéré*. The eight forms of the strict Hindu law are unknown. The formalities may be described as follows: Two or two-and-a-half months beforehand, the parents of the girl send intimation that they are willing to have the marriage on a certain day. This intimation is written, and the letter is called *pili chithi*. Then not less than nine and not more than twenty-one days before that day, the Nai and Brahmin go with it to the parents of the boy. The *pili chithi* is written in *sháshtri* and fixes the hour (between sundown and sunrise), as well as the day of the ceremony. The proceeding is called *lagan*. The parents of the boy come with the marriage procession (*barát*) to the village of the girl, but on arrival outside it halts, and a Nai is sent forward to announce the approach of the party. The halting place of procession is called *khet*. The friends of the bride now come to meet the others, and all go in with music and drums. Money, ornaments and

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The Meos, a Muhammadan tribe, have of course the *nikáh* of their faith, and do not have any halting at the *khet*. The bridegroom wears the *sehra*, a long necklace of flowers strung on a string, but does not as all Hindus do, in addition to the *sehra* wear the paper head-dress called *mohr*. They also, instead of the *lagan*, send a coloured string made up of differently coloured threads, with knots tied in it to show the number of days after its arrival at the boy's home for the date of the marriage. This parti-coloured string is called *kaláwah*, and the proceeding of sending it is *ganth*. The Shaikhs read the *nikáh* in the orthodox way, and so do the other Muhammadan tribes.

Mukláwa.

Nearly all the tribes keep the custom of *mukláwa* or *gona*, which precedes cohabitation. This is the final leave-taking of the bride, and the departure to her husband's home for good. The bridegroom sends notice of his coming to fetch his bride, and

* The Játs call *khet*, *gora*.

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on the other side's agreeing he comes with his friends, and the ceremony of *mukláwa* is gone through. The bride's and bridegroom's faces are turned to the east, and they are then seated on two low stools, *pithá*; on the right hand the youth, on the left the girl. The veil of the bride is tied to the *chaddar* of the bridegroom. This ceremony is called *gánth jorá*. In the woman's veil are placed *paisa* and rice; in the *chaddar* of the man, betelnut and rice. After this sacrificial prayer is made (not by Muhammadans), and then the stools of the pair are exchanged, the bride sitting down on that of the bridegroom, and *vice versa*. Then the sacred mark (*tilak*) is made on the forehead (not by Muhammadans) and necklaces are put on the husband, and the pair take their departure. The final moments are a scene of great sorrow, real or affected. The mother weeps violently and noisily; the women of the family beat their breasts as if the girl were going to her death; and the girl herself, who one would think was glad enough, puts in a sympathetic whine, which she stops on the slightest occasion. Meanwhile, the bridegroom stands by and looks foolish. The Rájputs don't send the bridegroom to fetch his wife; his *pagrí* and knife are sent to represent him. The *mukláwa* takes place in the third or fifth year after marriage. When the bride and bridegroom are both adult or adolescent at time of marriage, the ceremony of changing stools, called *pirha pher*, may be appended to the other, and this does instead of the regular *mukláwa*. There is also some disagreement among the various tribes as to which party takes the initiative, some saying one, some the other; but this does not appear practically important, as neither side can really move unless the other agrees.

Karao or widow-marriage.

Second marriages (*karaó* or *karéwa*) are practised by most of the Hindu tribes, Jats, Gujars, Ahirs, Gaurwas, &c. Part of the Rájput Chauháns even have taken up the custom, and on this score are called Chauháns simply, without the addition of Rájputs; their stricter kinsmen will not acknowledge them or intermarry with them now. The Hindu Tagás, and the Brahmins still keep up the old prohibition too. The Muhammadans, of course, are free to marry again, and the *karáo* of a woman of Islám is called *nikáh sání* (a second marriage). For the Hindu *karáo* there is no other ceremony than that of collecting the brotherhood and in their presence putting a veil over the new wife, with *chúrís* (bracelet rings). This is always done; and when it has been, the *karáo* wife is in all respects a legitimate wife, and her sons inherit with those of the wife married by *shádi*. *Karáo* should not be made within a year of the husband's death.

Restrictions of consanguinity in marriage.

The restrictions forbidding marriage with relations are more wide in their scope than ours. The narrowest ban is that of one *got* or clan, *viz.*, that the wife must not be of the husband's *got* but Shaikhs and Saiyids do not observe this. The Meos bar only one *got*, the man's own. Among the Gujars, the Muhammadans of Sonepat also do this; but those of Ballabgarh like their Hindu

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confreres bar three *gots*, the man's own, the mother's, and the father's mother's *got*. The Gaurwas do the same. On the other hand the Hindu Jat adds a fourth *got* with which it is unlawful to marry—the mother's mothers; and the Ahirs do the same. Muhammadan Jats, an unimportant section of the tribe in this District, do not appear to know their own minds about the fourth *got*; and indeed this part of the ban is a moot point among several tribes, those who bar only three *gots* asking satirically :—

"Who cares for the restriction about marrying one of the mother's *got*?"

Laguages.

The Urdú of Delhi, polished in the Courts of the Mughal Kings, is the purest spoken in India. The townspeople use it without exception, though of course speaking it in varying degrees of excellence : but the villagers up to the very walls of the city use the Hindi or Braj of the Delhi territory which contains a remarkably small admixture of Persian : the villagers in Sonepat speak a very broad dialect which is the more unintelligible from the people having a curious habit of speaking through their teeth. Panjábi in its present form is really only spoken by the native regiments who, as a rule, are recruited from the north, but in the Ballabgarh Tahsíl is a colony of Punjab Jats who immigrated centuries ago and who still speak the old language in a corrupt form : the Punjab traders who have their own quarter at Shídípura now speak Urdu only.

With so many schools, so much commercial business and so many tourists in the cold weather English is now understood all over the city : owing to the backward state of female education it is not spoken much within the family circle, but of recent years the use and knowledge of English has spread enormously.

Races and Tribes (Table XV, Part B).

Language.	Proportion per 10,000 of population.
Western Hindi	9,744
Bagri	3
Panjabi	67
Pashtu	15
Marwárì	111

The figures in the margin give the distribution of every 10,000 of the population in 1911 by language, omitting small figures.

The table in the margin shows the leading tribes as enumerated at the 1911 Census and the percentage of the cultivated area which was held by those tribes in 1910, as reckoned during the settlement measurements. The figures show that the

Caste.	Tribes.	Population at 1911 Census.	Percentage of land held.
Hindu. ...	Ahír ...	12,781	4
	Bania ...	42,561	...
	Bráhman ...	57,293	8
	Chamár ...	60,439	...
	Chuhra ...	23,286	...
	Gújar ...	24,512	8

Caste.	Tribes.	Population at 1911 Census.	Percentage of land held.
	Ját ...	1,00,345	48
	Kumhár ...	12,439	...
	Málí ...	12,243	...
	Naí ...	8,786	...
	Rajput ...	19,042	6
	Reah ...	?	2
	Taga ...	5,497	5
	Others ...	...	5
		Total ...	86
Muhammadan ...	Biloch and Pathán	21,756	1
	Meo ...	8,124	2
	Sayad ...	10,440	2½
	Sheikh ...	73,749	4
	Others ...	...	4½
		Total ..	14
		Grand Total ...	100

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district is in the main a tract peopled by Hindus and that the Ját tribe is by far the most important, holding indeed nearly half the cultivated land. Statistics of the more important sub-divisions of the Játs and Rájputs are added in the supplementary part of the table.

Jats.

The Hindu Jats may be distinguished broadly into two divisions—those of the north and middle of the district, and those of the south. The latter centre mainly round Ballabgarh their historic traditions are connected with the Jat rajas who had their capital there, and they have a lingering sentiment about Bhartpur, the seat of their greatest representative. The northern men, on the other hand, have, so far as is known, nothing in common with this history.

The Dahiyás and Ahulanas.

The great division here is into two *dharrahs* or factions called Dahiyas and Ahulánas. This division runs right through Sonepat, and more faintly through Delhi Tahsil and is so firmly rooted in the popular mind, that Muhammadans even class themselves with one or the other party. Thus the Muhammadan Gujars of Panchi Gujran called themselves Dahiyas, and so do all the neighbouring villages; though no one appears able to give reasonable explanation why. The historical tradition of the origin of the Dahiyas is embodied in a characteristic story as follows:—The son of Raja Pirthwi, Harya Harpal, being defeated in battle by the king of Delhi, took refuge in a lonely forest, which, from the number of its trees, he called Ban-auta, now corrupted into Barauta in Rohtak. There he ruled, and his son Dhadhij after him. Dhadhij one day, in hunting, chanced upon a certain pond or tank near Pogthala in the same district, where the Jat women had come together to get their drinking water. Just then a man came out of the village, leading a buffalo-cow-calf with a rope to the pond to give it water. The animal, either from freight or frolic, bounded away from the hand of its owner, and he gave chase, but in vain. Neighbours joined in the pursuit, which was nevertheless unsuccessful, till the animal in its headlong flight came across the path of a Jatni going along with two *gharras* of water on her head. She quietly put out her

Traditional origin of the Dahiyas.

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foot on the rope, which was trailing along the ground and stood firm under the strain which the impetus of the fugitive gave. The calf was caught, and Dhadhij, looking on with admiration, became enamoured of the stalwart comeliness of its captor. Such a wife, he said, must needs bear a strong race of sons to her husband, and that husband, notwithstanding the fact of her already being married, he forthwith determined to be himself. By a mixture of cajolery, threats, and gift-making, he obtained his desire, and the Jatni married the Kshatri prince. By her he had three sons, Teja, Sahja, and Jaisa. Dhadhij gave his name to the Dahiyas, and his children spread over the neighbouring tracts, dividing the country between them. Teja's descendants live in Rohtak. Sahja's partly in Rohtak and in 12 villages of Delhi, Jharaut, Jharauti, Anandpur, Rohat, Kakrohi, Kheri, Manajat, Malha Mazra Hasany-Karpur Tihara kalan, Tajpur Tihara khurd, Kheri Dahiya, Bhatgaon, Nasirpur Bangar. Jaisa's descendants live in Rohtak, and in the following 16 villages in Delhi—Mandaura, Mandauri, Turkpur, Bhatgaon, Bhatanah, Jafarabad, Bidhnauli, Garhi Bala, Fatehpur, Abbaspur. Bhuwapur, Mohammadabad, Koali, Nahrah, Nahri, Hilalpur, Saidpur. Another tradition derives the name Dahiya from Dadhrera, a village in Hissar, which it thus makes the starting place (*nikas*) of the tribe.

The Ahulana tradition.

The Ahulana tradition is not so picturesque as that of the Dahiyas. Their origin is traced to Rajputana. Their ancestor, whose name is not known, was coming Delhiwards with his brothers Mom and Som in search of a livelihood. They quarrelled on the road, and had a deadly fight on the banks of the Ghata *naddi*. Mom and Som, who were on one side, killed their nameless kinsman, and came over to Delhi to the King there, who received them with favour, and gave them lands; to Som, the tract across the Ganges, where his descendants live as Rajputs now in Muzaffarnagar and Meerut. Mom was sent to Rohtak, and he is represented now by Jats there, in Hansi, and Jhind. The Rohtak party had their head-quarters in Ahulana in that district, and thence, on account of internal quarrels, they spread themselves in different directions, some coming into the Delhi district. Dates of these migrations are misty, and in fact are considered unimportant, for things of this kind are always said to have happened an immemorial time ago. The division into Deswalas and Pachamwálás, which is sometimes mentioned as belonging to the Jats, is not known in Delhi. Lists of villages belonging to the Dahiya and Ahulana sections will be found in the Settlement report.

The Delhi Gujar.

The most characteristic tribe of the district, next to the Jat is the Gujar; and indeed, from the fact that there are a few Gujar villages near the city itself, we hear more of the Delhi Gujar than of the Delhi Jat. A good deal has been written about the origin of the tribe, but very little is known. It appears probable that Gujars have lived in this part of the country from very remote periods; and they occupied the hills because no one else cared to do so, and because their solitary and inaccessible tracts afforded

better scope for the Gujar's favourite avocation, cattle-lifting. But though he thus has possessed two qualifications of a Highlander, a hilly home, and a covetous desire for other people's cattle, he never seems to have had the love of fighting, and the character for manly independence, which distinguish this class elsewhere. On the contrary, the Gujar has generally been a mean fellow, and it does not appear that he improves much with the march of civilization, though of course these are men who have given up the traditions of the tribe so far as to recognise the advantageousness of being honest (generally). The rustic proverb-wisdom is very hard on the Gujar. "Make friendship with a Gujar when all other tribes have ceased to exist." "Solitude is better than a Gujar (for a companion), even though it be such wretched solitude that a wild beast's jungle is better." In other words, the company of wild beasts is preferable to that of a Gujar. His habit of thieving, and that of the Ranghar also are described in very curt terms: "The dog and cat two – The Ranghar and Gujar two. If these four (creatures) are not (near): then go to sleep with your feet stretched out (*i.e.*, in ease and security)." His character for industry, and general eligibility as a neighbour, is indicated by the rhyme :—"May the place remain uninhabited, or dwelt in by a Gujar." Mr. Lyall, in his Kangra Settlement Report, Appendix V, Proverb No. 18, gives a somewhat different meaning to the phrase, but the optative given here is indicated by the following anecdote :—King Tughlak was building his fort at the same time that the Pir Nizam-ud-din was making a staircase well (*baoli*). The holy man's workmen laboured day and night, but those of the king required rest. Filled with envy, the king sent orders that no *banya* should supply the *pír* with oil, so that the workmen might have no light. However, the miraculous power of their employer enabled the night-workers to burn water instead of oil, and in return to the message from the king, the saint uttered the anathema quoted." Tughlakabad is now a Gujar village. The chief centres of the Gujar tribe are Tigaon, in Ballabgarh, Mahrauli and the villages to the south of it in the same tahsil, and Panchi Gujran in the Sonepat, where the men are Muhammadans, and are worse cultivators even than their Hindu kinsmen, who themselves are not much in this way. In Delhi the men of Chandrawal and one or two other villages are Gujars, and all the *chaukidárs* of the civil station are drawn from this tribe, who, for the consideration of seven rupees per month, waive their prerogative of house-breaking. So far fixed has this discreditable blackmail become that the police virtually recognise it, and in one or two cases where a rash resident attempted to dispense with the services of a *chaukidar* his house was promptly plundered. There is, however, some difference of morality in favour of the Gujars round about Tigaon, as compared with the men of the hills. The Agra Canal has rendered cattle-lifting more difficult, as its banks are rather steep, and the Gujar cannot easily get the cattle he is driving off across it, except at the bridges, which of course increases the chance of detection.

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A more pleasing subject is the Bráhman. He is not a first-rate agriculturist, but better than the Gujar, and in character he is quiet and peaceable, honest and not much given to litigation. The proverb says of him, however, rather unfairly: "It is as common for a Bráhman to do ill, as it is for famine to come in the Bagar tracts", (*i.e.*, the dry tracts towards Bikanir and Sirsa). Yet his general peaceableness is testified by the admonitory rhyme:—

"It is bad thing for a Bráhman to wear a knife".

Tagas.

The Tagas were originally Bráhmans, but do not now intermarry with them. They say that they differ from the Bráhman only in not habitually collecting alms, which they have given up (*tyág-dená*), and hence their name. As Hindus they are fair cultivators, but when made into Muhammadans, they, as usual, deteriorate. The Tagas are found mainly in Sonepat, but there is Fatehpur Taga in the south of Ballabgarh. The Bráhmans are spread pretty fairly over the district. They are co-sharers with Játs in the first class estates of Bhatgáon and Murthal in Sonepat, and in other places.

Ahírs.

The Ahírs are of some importance. Their tradition claims for them a Rájpút origin, and the story goes that, when the incarnation of Krishn took place in Bindrában, some demon carried off the cattle of an ancestor of the tribe, and also the man himself while tending them. Krishn, by his omnipotence, created a man for the purpose of tending the cattle, and brought back the cattle for him to take care of, and his descendants were henceforth to be called Ahírs. This is a curiously Irish story, and does not deal well with the original herdsman; but another tradition steps in to add that the defeated and disappointed demon, when he saw his evil intentions thwarted, brought back the abducted cattle-driver, so that he and Krishn's man have between them to account for the tribe. Its present representatives are a quiet, orderly set of men, first class cultivators, and altogether unobjectionable to a degree hardly equalled by any other class. Yet the proverb, (made probably long ago), is fiercer on the Ahír almost than on any tribe:—"Don't rely on a jackal, the *lámp* (a kind of grass), or an Ahír, but endure a kick from Rájpút, or from a hill, (*i. e.*, a stumble,)":—and still worse:—"all tribes are God's creatures; but three kinds are mercielss; when a chance occurs they have no shame, a whore, a *banyá*, and an Ahír". Their villages lie mostly near Najafgarh, where they have quite a little colony; but there is also a smaller set of Ahír villages near Bádlí.

Rájpúts.

The Rájpúts in the district are for the most part scattered; they are not good cultivators, but are not of great importance any way in Delhi. The Gaurwas in Ballabgarh have several villages near Ladhauli; they are said to be degenerate Rájpúts, who make second marriages (*kardo* or *karewa.*) They are especially noisy and quarrelsome, but sturdy in build, and clannish in disposition. The

Chauháns are more respectable than the Gaurwas, and are really Rájpúts, as they certainly are in most other places: they are the best cultivators of the tribe, and are otherwise decent and orderly. They own a few villages near Delhi to the south, and there is a small colony of them and a Chauhán *zail* about Jakhauli in Sonepat. **CHAP. I. C.** **Population.**

Patháns. Of the Muhammadans, the Patháns are the most numerous holding land mostly about Sonepat and Najafgarh. They still retain some of the manly qualities expected in men of their descent and a few find their way into Indian regiments.

Saiyids. The Saiyids hold land principally at Sonepat and Farídábád: they are poor cultivators and can be most suitably described as decayed gentry. As a sacrosanct tribe they acquired extensive property under the Mughal rule, but their laws of inheritance do not harmonise with the principles of modern law and administration and the unfortunate Saiyids caught between the two mill-stones are being squeezed out. They are generally regarded from an agricultural point of view as a worthless tribe, but the faults are not innate and the deterioration is entirely due to the force of circumstances.

Meos. The Meos are quite a small tribe in this district owning a few villages in south-west Ballabgarh. Their main habitat is the Gurgáon District in the Gazetteer of which is a full account of them.

Miscellaneous. As Table XV shows there are many tribes whose numbers are very few: of them the Reahs, Mális and Aráins are specially good agriculturists but the remainder are mostly menials or artisans. The Banias are of course a large tribe, to which belong not merely the petty village tradesmen with whom we usually associate the term, but also the rich merchants of Delhi to whom more special reference is made further on.

Each minor tribe is employed principally in one pursuit or calling; for instance Bharbunjas are cooks; Banjáras are cattle fanciers; Gadarias are graziers; Jhinwars are water-carriers; Bháts, Jogis, Mirásis and Ráwals are itinerant musicians and beggars; Kanjars are a nomadic tribe, with a taste for *shikár*, and are harvest labourers.

Character, Disposition and Physique of the People. The people of the district are not, as a rule, addicted to crime. There is a certain amount of cattle thieving for which the Rangars of Jhundpur and the hill Gujars are responsible, but the latter have improved since their villages were benefitted by the bands in the Kohi. There is very little premeditated crime, but when blood runs hot very minor squabbles are apt to develop in a way which lands the disputants into serious trouble. Fifty years of peace and settled rule following the stern lesson of 1857 has transformed the agrestic population, who can be no longer described (as they were by Sir John Lawrence) as "predatory and turbulent".

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The city population are generally well conducted: the city life breeds opportunities for theft and commercial dishonesty, but serious crime is infrequent. There is however considerable religious feeling between Hindu and Muhammadans such as is either wanting or dormant in the villages, a feeling which is kept alive by the extremists. At times of festival there must always be some anxiety lest the demons of religious unrest will come into conflict.

The physique of the ordinary *zamíndár* of the district differs much among the various tribes, depending, apparently, more on caste and tribe than anything else. The Játs of the well villages are generally healthy and strongly made, with a frame which, compared with an Englishman's is very light, but very often exceedingly wiry and capable of great endurance. The average weight is supposed by an intelligent man of their class to be *Chaudah dhari* =70 *sers*, or rather more than 140lbs., say, 9 stone and a half. The Ját skin is a light brown, and in a young man is smooth and fresh-looking, reminding one more of the traditional Italian olive complexion than anything we mean by the somewhat opprobrious epithet, dark. The Sheikh here is physically very inferior and the Muhammadan Taga not much better. The Bráhmans and Ahírs do not differ much from the Ját in appearance, while the Gujar has about the same tint. The Chaubán Rájpúts are considerably darker. The face has often regular, and sometime even handsome features, the great fault being a want of energy in the expression, which is for the most part either apathetic or sensual. Of the women's faces one sees little, but they seem less animated even than those of the men. Their figures, however, as seen at the village well, are in youth well-rounded and supple, the arm especially with the tight-fitting silver ornament clasping the biceps is not seldom a model of comeliness, yet this grace is soon lost, as much probably from poor diet and bad sanitary conditions as anything. Both sexes have, as a rule, beautiful teeth, white, strong, and regular which they clean with the usual tooth-stick (*dautaun*). The hair, of course, is black or blue-black, but the Hindu tribes shave it, except the crown lock (*choti*). The Muhammadans sometimes shave the head clean, sometimes not at all; but a young fellow, when he does not shave will generally by way of personal ornament have a parting shaven neatly from front to back of his head. The face is not shaven by the Muhammadan, though he may cut his moustache with scissors, if it seem too long. The beard here as elsewhere is greatly cared for; it is called rather grandiloquently *Khuda ka núr* (the light of God); and it is not fitting to cut it. Hindus generally shave the beard, but not the moustache. But in times of mourning the nearest heir as a matter of course will shave himself clean on head and face. This is a point of religious duty. Both Hindus and Muhammadans shave under the armpit.

Leading families in the Rural District.

Delhi having been the capital of successive racial empires for so many years, the importance of the imperial courts has always prevented rural notables from coming into prominence.

In days gone by the Rajas of Ballabgarh and the Nawabs of Jhajjar were of course pre-eminent, but since the mutiny the representatives of those families have retired into obscurity. The leading men of the present day are the descendants of those who remained loyal in 1857 or who rendered conspicuous service during the crisis. **CHAP. I. C. Population.**

In the Sonepat Tahsil, the Saiyid family of Sonepat consists of men of position, a fact which is recognised by the extensive *muáfis* which they hold. Zámin Ali (the zaildár) and Háfiz Sarwar Hussain are the two most important individuals of that family. Kabul Singh, zaildár of Larsauli, is the grandson of Rai Bahadur Nathá Singh, who, during his lifetime, was held in great respect. Pandit Rabi Dat Singh, zaildár, is the leading Bráhman : he is the grandson of Pandit Mamul Singh, who was granted the *biswadári* and *muáfi* rights in perpetuity of Mauza Kundli for services in 1857. Pandit Murari Lal, son of Kanwar Pirthi Singh, is the leading member of a Bráhman family, whose ancestor, Sheo Nath Singh, received in *jágír* forty-two villages and the title of Raja from Sháh Alam. The family at the present moment hold revenue free their ancestral village Mauza Bahalgarh and a few other small plots.

The only family of importance in the Delhi Tahsil is that of Rai Bahadur Chaudhri Rughunath Singh, son of Faujdar Baldeo Singh, Ját, of Mitraun. It is related to the Rajas of Bhartpur. Chaudhri Hukam Singh first acquired influence in the surrounding villages, and his son, Daya Ram, rose to importance obtaining five villages in Rohtak in *jágír* from Scindhia, during the Marattha raids, with the post of *suba* of Rohtak. Early in the period of British rule, he also received Mitraun in *jágír* and apparently held it till his death. Two of his sons obtained posts in Bhartpur, and one of them, Charn Singh, married his daughter to the Raja Balwant Singh. Consequently all the grandsons of Daya Ram obtained high offices in the States, but his youngest son, Lachhman Singh, entered the Indian Army and became a Risáldár. After serving in the Kabul campaign he took part in the siege of Delhi. His son, Baldeo Singh, and two of his nephews, Ratan Singh and Gopal Singh, also did good service during the crisis in Bhartpur. For these they received *jágírs*, Baldeo obtaining Kharkbari Rund in this District, while his cousins received two villages in Bulandshahr. Chaudhri Rughunath Singh, the present head, is an Honorary Magistrate at Najafgarh, a Rai Bahadur, and a Divisional Durbari.

Lachhman Singh. Lachhman Singh is the son of Pandit Jugal Kishore, who received Khánpur village in *jágír* for services in 1857. His son, Pandit Meghraj, was killed fighting the rebels at Badli, as Naib-Tahsildar of Alipur.

Chaudhri Nasir-ud-din, Meo, is the grandson of Bhure Khan, who received a grant of land revenue free in Mauzas Narhaula and Banskoli for good services in the mutiny : Nasir-ud-din is the local zaildár and is also a member of the Municipal Committee of Delhi.

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In the Ballabgarh Tahsil Khán Sáhib Mustafa Hussain is a well known man being an Honorary Magistrate, zaildár and President of the Farídábád Municipal Committee and a Divisional Durbari; he is one of the colony of Saiyids who settled at Farídábád years ago and received grants of land in the vicinity.

The family was founded by Saiyid Afzal Ali, who was invited by Jahángir to come from Bokhára, and settled in Farídábád at the request of its founder Shaikh Faríd (Saiyid Murtaza). He received a *muáfi* of 400 *bighás* of land. Some of his descendants served in Bhartpur and Mír Iftikhár Ali is in receipt of a pension of Rs. 50 from that State. Mír Amjad Ali, Risáldár-Major, received three villages in Bulandshahr for services in the Mutiny. His son, Mír Kásim Ali, was an Honorary Magistrate in Delhi, and his son Ahmad Shafi married a sister of the *rais* of Lohárn. The family has, however, lost its large landed property in this District and its three villages in Bulandshahr.

In Mohina is to be found another important Saiyid family which rose into special prominence from the action of Risáldár Hidáyat Ali in succouring European fugitives (including Mr. Ford, Deputy Commissioner of Gurgáon) in 1857: his family hold the village in *jágír* and *muáfi* profiting thereby some Rs. 6,000 yearly. The village is named after Saiyid Moin-ud-din, the founder, a descendant of Saiyid Shaháb-ud-dín who accompanied Muhammad of Ghor from Gardez and became Governor of Karra Manakpur.

The Shaikhs of Farídábád are an offshoot of the Ansáris of Pánipat, a family founded by Qázi Malik Ali, chief Qázi of Herát, who came to India in the time of Ghiás-ud-dín Balban and received a *jágír* in Pánipat. One of the family, Muhammad Azam, was governor of Meerut, and his grandson, Sheikh Shakar-ullah, settled in Farídábád where lands were assigned him. When the Rajas of Ballabgarh rose to power one Sheikh Rahím-ullah became treasurer to Raja Híra Singh and his eldest son Abdulla succeeded him. His son, Ghulám Haidar, a Risáldár in the Indian Army, received a *muáfi* of 4,000 *bighás* of land in Talwar, a village in Sirsa, which is still held by his descendants. Khan Bahadur Sheikh Abdul Ghani was an E. A. C. retiring in 1894: since his death in 1906 his young grandson by name Bashír Ahmad is the nominal head of the family. Another grandson of Shaikh Abdulla, Abul Hasan is a retired Tahsildar, and other members of the family have held similar positions.

Leading Families in the City.

The leading families in the city can be conveniently tabulated under three heads :—

(1). Muhammadans of ancient lineage whose ancestors were important men during the Mughal era.

(2). Hindus descended from families who, from time immemorial, have constituted the banking and commercial fraternity of the city.

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(3). Individuals who or whose families have come to the front since British occupation on account of personal services or attainments.

For the sake of convenience the Muhammadans and Hindu families are listed in turn.

Mirza Suráya Jáh Sháhzáda.

Mirza Suráya Jáh heads the list of Provincial Durbárís in the District. His father Mirza Iláhi Bakhsh rendered services of the highest value to the British Government in 1857. His conduct having been fully investigated at the close of the rebellion, he was suitably rewarded and recognised as the chief representative of the Mughals. Hereditary pensions aggregating Rs. 22,830 per annum, with effect from 1st May 1857, were granted to the Mirza and his family in the marginal shares.

		Rs.
To the Mirza personally	...	9,550
" his wives	... ...	4,530
" his daughters	... ...	7,670
" other relatives	... ...	1,080

In 1861, in lieu of an assignment, enjoyed by him jointly with others before the Mutiny, from the villages of Sámpla and Asauda in the Rohtak District the Government of India granted him personally a perpetual *jágír* of the annual value of Rs. 5,000, and in 1866 released to him and his family the revenues of certain villages in the Delhi and Meerut Districts, yielding Rs. 2,226 a year. He was awarded Rs. 1,21,000 as compensation for loss of property incurred during the siege of Delhi. In 1872 he was allowed to borrow Rs. 45,000 from Government; more than half of which sum was remitted as an act of favour. Rs. 2,250 were added to his pension in 1877 on the assumption by her late Majesty of the title of Empress. Mirza Iláhi Bakhsh died in 1878, and was succeeded by his eldest son, Mirza Sulámán Sháh who died in May 1890. Mirza Suráya Jáh was then recognised as chief representative of the Mughals *vice* his elder brother. The Mirza is exempt from personal appearance in the civil courts; he is also a member of the Jáma Masjid and Fatehpúrí Mosque, and of the Anglo-Arabic High School Managing Committees. The pension granted to the ex-royal family amounts to Rs. 1,902 per mensem of which Rs. 1,292 are the Mirza's personal pension, the rest being divided among his relatives. When the Delhi College ceased to exist in 1877, the Mirza made great efforts to re-establish the institution securing promises of subscription amounting to Rs. 72,000, but his exertions did not meet with success. He subsequently founded the Sháhzáda High School in 1889 but in spite of his generosity both in cash and the free loan of a building the school is now in a moribund state. Government have in 1910 granted the Mirza a further loan of Rs. 70,000 to help him out of financial difficulties, a loan which is to be repaid by short drawals (Rs. 8,000 per annum) of his pension.

The Mirza married the daughter of His late Highness Nawáb Muhammad Ali Khán of Tonk. His mother Nawáb Abádi Begam Sáhiba was a grand-daughter of the Emperor Akbar Sháh.

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Through the Mirza's intercession the Government of India sanctioned pensions in 1891 for 50 females and 5 males, and in 1897 for 62 females and 40 males of Mughal origin on the ground of their poverty. He is a Háji and a Háfiz (of the Qurán).

Sháh Abd-us-samad.

Sháh Abd-us-samad is a nephew of the late Mián Muín-ud-dín who was a descendant of Sháh Nizám-ud-dín Aurangábádí, *pír* of Alamgír II. The most celebrated saint of his family, Mauláná Fakhr-ud-dín, was *pír* to Sháh Alam, and has still many followers in the Punjab. Some of his *Khalífas*, such as Sháh Sulaimán of Taunsa in Dera Gházi Khán and his son Mián Ala Bakhsh, who died in 1902, were also famous for their piety. Mauláná Fakhr-ud-dín's son, M. Qutab-ud-dín, was *pír* to Akbar Sháh II, and his son M. Ghulám Nasír-ud-dín, better known as the Kalai Sáhib, was the spiritual guide of Bahádur Sháh, the last of Timúr's line. By his first wife M. Ghulám Nasír-ud-dín had two sons, Mián Nizám-ud-dín and Muín-ud-dín, and a daughter ; by his second wife, a distant relation of the ex-royal family he also had two sons, Wajíh-ud-dín and Kamál-ud-dín. On his death his eldest son succeeded him and received Rs. 1,000 a month from Bahádur Sháh, but after the Mutiny he went to Hyderabad and obtained a *jágír* of Rs. 6,000 a year from the Nizám. On his death without issue his brother Muín-ud-dín succeeded him; and on his dying childless in 1886 he was succeeded by his sister's sons. That lady was the wife of Sháh Abdus Salám, a man of distinguished family, being 9th in descent from the famous Salem Chishti, Akbar's *pír*. She had three sons, *viz.*, Sháh Ihtram-ud-dín, Sháh Raís-ud-dín and Sháh Abd-us-samad, of whom the last named succeeded his maternal uncle in 1898. He and his brother Sháh Raís-ud-dín receive Rs. 300 *hali* a month from the Nizám's treasury, as their share of Nizám-ud dín's *jágír*, a smaller share of which also goes to Sháh Kamál-ud-dín, his only surviving brother. Sháh Abd-us-samad also owns half the village of Banskoli in this District. As a member of the highest order of Sufism current in India, he has already qualified himself to be a successor of the late Sheikh Ala Bakhsh of Taunsa. Both he and his brother Sháh Raís-ud-dín enjoy the respect due to their family.

Hakím Háfiz Muhammad Ajmal Khán, Háziq-ul-Mulk.

Khwájas Muhammad Kásim and Muhammad Háshim, ancestors of the Hakím family, came from Káshgarh with Bábar and settled at Aurangábád, Deccan. In Akbar's reign Mullas Ali Kari and Ali Dáúd were invited to Agra, where they were regarded as the most learned men of the court and their Arabic commentaries are still esteemed. Hakím Fazal Khán, son of Ali Dáúd, became a famous physician of Akbar's court, and his son, Muhammad Wásal Khán, was physician to Aurangzeb. His two sons, Muhammad Akmal and Muhammad Ajmal, received a *jágír* in two Patna Districts, worth two lakhs a year—besides a monthly salary of Rs. 3,000. The former also obtained the title of Háziq-ul-Mulk. After his death his son, Muhammad Sharíf, received eight villages, in Pánipat and Sonepat, in *jágír*. These were transferred to his six sons, but on his death at

NOTE.—Mirza Suráya Jáh died on February 8th, 1913.

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an advanced age under Sháh Alam, the *jágír* was resumed by the British Government, his sons being granted pensions instead. His son, Sádiq Ali Khán, also held a *jágír* of three villages in Meerut, and a descendant Abdul Rashid is now a physician in Calcutta. Sádiq Ali Khán's second son, Mahmúd Khán, died in 1892, leaving three sons, Abdul Majíd Khán, Muhammad Wásal and Háfiz Muhammad Ajmal. Government conferred the title of Háziq-ul-Mulk upon the eldest of these and he founded the Madrassa Tibbiya at Delhi. On his death in 1900 Hakím Muhammad Wásal Khán became head of the family in his place, but died in 1903. The present head of the family is Hakím Muhammad Ajmal Khán, who receives Rs. 600 a month from Rámpur and has a large practice in Delhi and throughout India. In 1908 the title of Háziq-ul-Mulk was conferred on him. He has lately founded a Zenana school where training in midwifery is imparted to women as well as a shop where students are trained in pharmacy and the best Yunáni medicines are prepared. Háfiz Muhammad Ajmal is a well known Persian and Arabic Scholar : he is also well known for his loyalty and the influence he wields in the interest of law and order and as a physician he enjoys the patronage of many native chiefs. He is a trustee of the M. A. O. College, Aligarh.

Hákím Murtaza Khán, younger brother of Mahmúd Khán, died in 1895, leaving two sons Ghulám Raza Khán, a well known physician, and Ahmad Sayid Khán, also a physician and a Municipal Commissioner of Delhi. Ghulám Raza Khán like his father was physician to the Mahárájá of Patiála and also served in Burdwán, but now practices in Delhi. He is a Divisional Durbári.

Khwája Abdul Rahmán.

Khwája Abdul Rahmán is the heir and successor of his maternal uncle Hakím Mahmúd Hussain Khán, who died childlessin 1886. The family traces its descent from Nawáb Khán Khánán Mahábat Khán, a great personage in the reign of Akbar, Hakím Razí Khán was a famous physician under Sháh Alam, and his sons Fakr-ud-dín Hassan Khán and Razí-ud-dín Hassan Khan were great physicians in the court of the last Mughal king. Hakím Muhammad Hussain Khán, son of Fakr-ud-dín Khán, was a native physician of renown, and an honorary magistrate in the city.

Mirza Saiyid-ud-din Ahmad Khán.

Mirza Saiyid-ud-dín Ahmad Khán, *alias* Nawáb Ahmad Saiyid Khán Tálib, is a member of the Loháru family. When Zia-ud-dín Ahmad Khán, younger brother of the Nawáb of Loháru, was ordered to leave the State he received an allowance of Rs. 18,000 a year, which he enjoyed till his death in 1885. In 1866 the title of Nawáb was conferred on him in recognition of his literary attainments, and he took a high position in Delhi. His eldest son, Mirza Shaháb-ud-dín Khán, who died in 1869, was for some time a City Magistrate. Mirza Saiyid-ud-dín Ahmad, a Divisional Durbári, is now the head of this branch of the family, which receives Rs. 12,000 a year from Loháru, in shares divided among

CHAP. I. C. — Population. the Mirza, his four nephews and four ladies of the late Nawáb's family, of which the Mirza is guardian. He also receives as his share Rs. 5,700 a year. He was a Honorary Magistrate in Delhi from 1873-79 and was subsequently appointed an Extra Assistant Commissioner but resigned in 1887, after his father's death and now devotes himself to literary pursuits.

Hakím Razí-ud-dín Khán, Shifá-ul-Mulk.

Hakím Razí-ud-dín Khán belongs to the Farídí branch of the Faruki Sheikhs, being 42nd in descent from the Caliph Umar. His early ancestors, from Farrukh Sháh to Yusuf Sháh, held the throne of Kábul 26 to 28 generations ago. He is descended from the famous saint Sheikh Faríd-ud-dín Ganj-i-Shakar, whose tomb is at Pák Patan in Montgomery. In the reign of Akbar his family became connected with the empire. Its first member was Sheikh Salím Chishti whose tomb at Fatehpur Sikri near Agra was built at the expense of the State. His grandson Nawáb Kutb-ud-dín Khán was private secretary to the emperor Jahángír and afterwards governor of Bengal. Nawáb Kutb-ud-dín Khán's son Nawáb Mohtáshim Khán was granted by Jahángír 4,000 *bighás* of land in Badaun District (United Provinces) where he built a small fort, named Sheikhupúr after Jahángír, who was called Sheikhu-bábá in his childhood. Nawáb Mohtáshim Khán was also granted by the emperors Jahángír, Sháh Jahán and Alamgír a *jágír* of 22 villages in that district. Hakím Razí-ud-dín's grandfather Hakím Ghulám Najaf Khán was appointed physician to the last king of Delhi with the title of "Azáz-ud-daula Bahádur." Hakím Zahír-ud-dín Ahmad Khán, the only son of Hakím Ghulám Najaf Khán, became an Honorary Magistrate, Municipal Commissioner and Divisional Durbárí and was made a Khán Sáhib in 1898. He married first the niece of Maulví Muhammad Sami-Ullah Khán, C. M. G., and on her death, the great niece of the late Sir Saiyid Ahmad. His eldest son Hakím Razí-ud-dín Khán practices Yunáni medicine for the public benefit, and has already acquired great popularity. For his Oriental scholarship and deep interest in the cause of education he was made a fellow of the Punjab University in 1897, and in 1909 was awarded the title of Shifa-ul-Mulk. He is also an Honorary Magistrate.

Khán Bahádur Ghulám Muhammad Hassan Khán.

Ghulám Muhammad Hasan Khán, B.A., a Fellow of the Punjab University, Honorary Magistrate, Municipal Commissioner, and a member of the Fatehpuri and Jáma Masjid Managing Committees, is a son of the late Maulvi Muhammad Ináyat-ur-rahmán Khán, an alumnus of the old Delhi College, who passed most of his life in the service of the Nizám, holding the posts of the Director of Public Instruction and Collector of the Inám Department. He retired from the Nizám's service in 1897 and died in September 1899. His great-grandfather, Nawáb Abd-ur-rahmán Khán, an influential nobleman attached to the Mughal court, was one of the chief savants and poets of his time, his *nom-de-plume* being 'Ihsan.' His famous private library contained no less than 20,000 manus-

cripts of the best authors. When in 1803 Lord Lake approached the city, the Nawáb was selected by the aged emperor Sháh Alam to escort the victorious general to the imperial palace. In recognition of his services as Honorary Secretary of the Famine Relief Committee Ghulám Muhammad Hassan Khán received the decoration of Khán Sáhib on January 1st, 1898. In 1899 he was made a Fellow of the Punjab University for his services as Chairman of the Educational Sub-Committee of the Delhi Municipality. In 1903 he was appointed a second class Magistrate and on 1st January 1904 he was granted the higher title of Khán Bahádur in recognition of his continued good and loyal services to the Government In 1891 he married the niece of the Nawáb of Jáhangírábád, Bulandshahr District, who is a co-sharer of the estate with the present Nawáb. In 1909 he was appointed Sub-Registrar in Delhi. His work as Secretary of the Anglo-Arabic School Committee is praiseworthy.

Saiyid Ahmad Imám.

Saiyid Ahmad Imám began his public career as Imám of the Jáma Masjid in 1882 during the lifetime of his late father Saiyid Muhammad who died in 1899 at the age of 73. He was installed by the *raises* of the city and the Managing Committee of the Masjid in his father's place in September 1899 having been a member of the Managing Committee since 1897. In 1898 his services in allaying the scare, caused by the proposed plague rules were acknowledged by the Punjab Government, and in 1900 he was enrolled among the Provincial Darbáris of Delhi in place of his late father. Saiyid Ahmad Imám holds a pre-eminent position in the Musalmán community of Delhi as Pesh Imám of the imperial mosque and receives an honorarium of Rs. 30 per mensem from the mosque funds. His position as Pesh Imám has further obtained for him stipends of Rs. 200 per month from the Nizám, the Bhopál and Rámpur States. His fore-father Saiyid Abdul Ghafúr was invited from Bokhára to settle in Sháhjahánábád by the Emperor Sháh Jahán to conduct the prayers in the newly built Jáma Masjid, and the title of Imám-us-Sultán conferred on him by the emperor. He traced his descent from Saiyid Abdul Ghafúr Bukhári I, a well known saint of Central Asia. Saiyid Ahmad Imám is the seventh Imám of the Jáma Masjid since its foundation and has been granted the right of private entry to levees for his loyal services.

Khán Bahádur Maulvi Háfiz Nazir Ahmad Khán Shams-ul-Ulama, L. L.D.

Was a Deputy Collector in the United Provinces when he was taken in the Nizám's services as Settlement Commissioner: he has now retired on pension. He is a great Arabic scholar, author of many of the best Urdú books and trasnlated the Indian Penal Code into that language. He was made a Khán Bahádur in 1897.

Khán Bahádur Maulv Zaka Ullah Shams-ul-Ulama.

Was formerly a professor at the Muir College, Allahábád, who has translated numerous books dealing chiefly with science and mathematics from English into Urdú. He has also published several works on constitutional history and in 1904 a life of the late Queen Victoria. He became a Khán Bahádur in 1887.

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Khán Bahádur Maulvi Abdul Hámid.

Khán Bahádur Maulvi Abdul Hámid is descended from Maulvi Háfiz Khairulla who, as an attendant of the Court of the Emperor Sháh Alam, was appointed Imám of the Aurangábád Masjid. The appointment descended to Maulvi Abdul Kádir who was also tutor to the family of Bahádur Sháh. At the time of the mutiny this Maulvi not only refused to sign and seal a *fatwa* of *jehád* against the British Government but also protected a Mrs. Leeson for three months in his house during the siege, eventually smuggling her at personal risk out to the British Camp. Khán Bahádur Abdul Hámid, his son, rose to be Deputy Collector in the United Provinces and was employed in the Settlement Branch. He was created a Khán Bahádur in 1896 and since his retirement has been continuing to work as a full powered Honorary Magistrate and Munsiff in Delhi.

Mir Abid Hussain.

Mír Abid Hussain Khán, Extra Assistant Commissioner at Hissár, is the eldest son of Khán Bahádur Saiyid Hadi Hussain Khán, whose long and meritorious services earned for him the title of Khán Bahádur in 1905. On his retirement he was made an Honorary Assistant Commissioner in Delhi. He was also Vice-President of the Municipal Committee and member of the Managing Committee of the Government Anglo-Arabic School. He has recently been appointed sub-registrar in the Hissar District. His second brother Saiyid Safdar Hussain Khán was also an Extra Assistant Commissioner, in the Punjab, and on his retirement settled in Delhi.

Saiyid Umráo Mirza.

Saiyid Umráo Mirza is a great grandson of Nawáb Haidar Hussain Khán, son-in-law of Nawáb Fazl Ali Khán, Intimád-ud-daulah, who entrusted Rs. 1,70,000 to Government in 1829, for the maintenance of the Anglo-Arabic School. Saiyid Sultán Mirza, his father, who died in 1910, was a member of the Managing Committee of the school and also an Honorary Magistrate. His son has now succeeded him in the former capacity.

Faiz Ahmad Khán.

Faiz Ahmad Khán, Mandal's father, was the late Muhammad Najaf Khán, nephew and son-in-law of Rukn-ud-Daula Nawáb Ahmad Ali Khán Shamsher Jang, Mandal of Karnál, whose services in the Mutiny are well-known.

Muhammad Najaf Khán was in the British service for 35 years. Though a civil officer he served in the battles of Jamálpur and Bhotal in Hissár and in recognition of his loyalty and active aid in the Mutiny, a valuable *khillat* and a *jágír* in the Kaithal Tahsíl known as Kubúlpúr was conferred on him after the Mutiny. He rose to Extra Assistant Commissioner. On retiring he settled in Delhi, the place of his adoption, and was appointed an Honorary Magistrate. He was soon after re-employed in the Tonk State in Rájpútána in a judicial capacity. After serving for 16 years as a member of the State Council he retired at the age of 80, dying at Delhi in 1902. Faiz Ahmad Khán is a *rais* of Delhi and heir to the property of his father. He is a public spirited man, being a

member of the Fatehpúrí and Jáma Masjid Managing Committees and also Assistant Secretary to the Anjuman-i-Máoyid-ul-Islám, Delhi. CHAP. I. C. Population.

L. Radha Kishen is the representative of the banking firm of Matwala Mal and Thakur Das. His grandfather (L. Thakur Das) had a great knowledge of banking and was notorious amongst bankers for his ability in commercial arbitration. His father (R. B. Hardyan Singh), who has recently died, was a Provincial Durbari, Honorary Magistrate and Municipal Commissioner. L. Radha Kishen.

Lalas Pala Mal and Mutsaddi Mal, the founders of this family, were well-known bankers, and the latter's son Chhunna Mal did good service in 1857. He was subsequently made a Municipal Commissioner, an Honorary Magistrate and a Rái Bahádur. On his death in 1870 his son L. Umráo Singh succeeded to these offices and became a Rái Bahádur in 1877. He took a great interest in engineering and erected the telephones in the city Police Stations. On his death in 1879 his brother Rámkishen Dás became head of the family. He also was an Honorary Magistrate, a Rái Bahadur and a Provincial Darbári. His business capacity originated the Delhi Cloth Mills Company. He died in 1902. The present head of the family, Lála Sheo Parshád, is son of Lála Umrao Singh. He was made an Honorary Magistrate in 1901 and a Provincial Darbari in 1903. The family is probably the wealthiest in Delhi and its benefactions include a *sadabart*, endowed by Lála Chhunna Mal with *a lákh*, and a *dharmsála* built by Lála Umráo Singh at a cost of two lakhs. Sheo Pershád himself is a liberal subscriber to various funds and is quite one of the leading Hindus in Delhi, and exerts influence for good. He was made a Rái Bahádur in 1907, has recently bought the Rothney Castle Estate at Simla, and was made a C. I. E. in 1911. Rái Bahadur SheoParshád, C. I. E.

Lála Sultàn Singh is the present head of the well known banking family of Sheo Singh Rái Nihál Singh. He is a Municipal Commissioner and an Honorary Magistrate and at the present moment is probably the richest man in Delhi, his property consisting of house property, agricultural land and a banking business. Being well educated himself he takes special interest in female education. In 1909 he was selected by the Punjab Government as a nominated unofficial member of the Provincial Legislative Council. He was given the title of Rái Bahádur in 1912. The Hon'ble Rái Bahádur Sultán Singh.

Rái Bahádur Srikishen Dás, Gurwála, banker, belongs to a family which was founded by Lála Rádha Kishen about 1732, when Ahmed Sháh Abdáli invaded India. The present head of the family, Srikishen Dás, is the adopted son of Naráin Dás, a decendant of Rádha Kishen's youngest son. He is a Municipal Commissioner and Honorary Magistrate, also Managing Director of the Krishan Mills Coy., which he originated. In 1900 he came a Rái Bahádur. Rái Bahádur Srikishen Dás.

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Lala Ishri Parshad.

Lala Ishri Parshad is now the sole proprietor of the firm of Gulab Rai and Mehrchand. His ancestor Raja Ram received Golera in *jagir* in Akbar's time as a reward for the establishment of a market at Saharanpur. The firm was established in Shah Jahan's reign. Lala Salig Ram was one of the leading bankers in Delhi and was appointed Government Treasurer in 1825. For services in the Mutiny he received Wazirpur in *jagir* for life, and his sons still possess 9½ *biswas* in the village. His only surviving son, Lala Ishri Parshad, is Government Treasurer in Delhi, Karnal and Gurgaon, and became an Honorary Magistrate in 1892. He is also a Provincial Darbari.

Lála Ram Chand.

Lala Ram Chand is a grandson of Lala Paras Das, a great-grandson of Lala Harsukh Rai, who founded the old Saraogi banking family of Delhi and did good service to Government under Shah Alam. He also built the Jain temple at Delhi, at a cost of 8 lakhs. For these services his son, Shugan Chand, received a *jagir* of three villages in Lord Lake's time. Lala Girdhari Lal, great-grandfather of Lala Ram Chand, did good service in 1857. Lala Ram Chand is a Divisional Darbari.

Lala Maharaja Lal.

Lala Maharaja Lal is the present head of the family of the late Rai Bahadur Munshi Jiwan Lal, which claims descent from Raja Raghonath Das, *wazir* of Shah Jahan. His grandfather M. Gidhari Lal was Mir Munshi to Sir David Ochterlony and Sir Charles Metcalfe, and his father, held that office in 1857, when he rendered good service. For his services he was made a Rai Bahadur, and became an Honorary Magistrate, receiving a grant of land. Lala Maharaja Lal is a Divisional Darbari.

Rai Bahadur Nanak Chand, C. I. E.

Rai Bahadur Nanak Chand is the head of the principal Dassan family in Delhi. His grandfather Chaudhri Surajbhan, Diwan to Nawab Ghairat Ali Khan, of Kham, left four sons, of whom Ummed Singh and Ganeshi Lal were the most distinguished. The former became tutor to the Maharaja of Indore and received a perpetual *jagir* of two villages from that State. He was a Municipal Commissioner and Honorary Magistrate in Delhi for two years, before his death in 1886. Rai Bahadur Ganeshi Lal did good service as Tahsildar of Bassian in Ludhiana District in 1848. He afterwards served in Gwalior and as Superintendent of Jigri and Dattia in Bundelkhand. For his services in 1859 he received a life-grant of Rs. 1,000 a year from Government. The Dattia State also conferred on him a perpetual *jagir* with Rs. 4,000 a year. Rai Bahadur Nanak Chand, the present head of the family, is the eldest son of M. Ummed Singh, and has since 1886 served in the Indore Sate of which he became Prime Minister in 1895. For services during the famine in 1890-01 he was the recipient of the Kaisar-i-Hind medal : since when he has been made a Rai Bahadur and a C. I. E.

Lala Mina Mal.

ala Mina Mal is a member of the Dhuliawala family whose large banking business formerly had considerable notoriety. The firm is still one of the leading banking firms in Delhi.

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Rai Bahadur Piare Lal.

Rai Bahadur Piare Lal, Khatri, is a retired Inspector of Schools, who received his title in 1893 for meritorious work. He is now President of the Anglo-Sanskrit School Committee. His younger brother (now dead) was the Hon'ble Rai Bahadur Madan Gopal, a member of the Punjab Council and a leading barrister.

Pandit Banke Rai Nawal Goswami.

Among Hindu scholars of mark may be noticed Pandit Banke Rai, Nawal Goswami, who comes from a family always noted for their eminence in Sanskrit learning: an ancestor of his family settled in Delhi about 200 years ago.

Pandit Banke Rai has established a library in Delhi City in memory of his father. He has set up by the Iron Pillar at the Kutab tablets giving the accepted translation of the inscription thereon in four different lauguages.

He is Head Teacher of Sanskrit at the Delhi Government High School; he is a Fellow of the Punjab University and a member of the Royal Asiatic Society. In 1909 he was selected President of the All-India Brahman Conference. In 1907 his literary attainments were recognised by the bestowal of the title of Mahamaho Padhyaya.

Lala Damoda Das.

Lala Damodar Das comes of a well-known family rejoicing in the nickname of Topkhanewala, which was acquired by an ancestor Diwan Jai Singh who was in charge of the artillery of Shah Alam. The post was hereditary and Raja Dina Nath (grandfather) was the incumbent in 1857, but joined the British forces for which he received subsequently a suitable monetary reward. Lala Damodar Das himself is an E. A. C. in the Punjab.

Rai Bahadur Seth Kanhaya Lal.

Rai Bahadur Seth Kanhaya Lal, Bagla, is the Managing Proprietor of the Hanuman and Mahadeo Cotton Mills. A wealthy Marwari, with connections in Ajmer, he is a liberal subscriber to public charitable institutions.

Religions.

The distribution of every 10,000 of the population in 1901 by religions is shown in the margin.

Religion.	Rural population.	Urban population	Total population.
Hindu ...	8,372	5 505	7, 409
Sikh ...	1	10	14
Jain ...	80	176	112
Musalamn ...	1,525	4,213	2,428
Christian ...	21	94	46

The great bulk of the population are Hindus of the old class. In every village there is a *shiwala* a *thakurduara* and numerous altars (*than*) where the village tutelary deity (*bhumian*) or the goddess of small-pox is invoked with offerings. (See 1883 Gazetteer, page 56).

Jainism is only found in the towns among at the well-to-do traders: the followers of this religion are very careful not to

CHAP. I. C. Population. destroy animal life, in their food and drink, and to keep the long fasts which are prescribed.

The Muhammadans are mostly Sunnis: there are also Shias in the Delhi City and in Sonepat and Ballabgarh towns and in the lower portion of the Dabar in the Ballabgarh Tahsil. The Muhammadans have also a few villages scattered over the other parts of the district and are mostly converts from Hinduism. The Muhammadan element is strong in the towns of Delhi, Faridabad and Sonepat.

Superstitious. There are numerous superstitions. It is held unlucky to start on a journey eastward on Monday and Saturday, westward on Sunday and Thursday, northward on Tuesday and Wednesday, southward on Thursday. On starting on a journey it is deemed fortunate to meet a sweeper, a woman with a child, some one carrying water, or a Khati or Máli with flowers, a horseman, a vessel of milk, curd or ghi, vegetables and sugar. It is considered unlucky to meet a Brahman, a man with a bare head, any person weeping, or vessel broken in a person's hand, a cart, a *teli*, a snake, an empty *gharra*. To hear the sound of crying or to hear a person sneezing while on a journey is alse considered unlucky. It is unfortunate for a mare to drop a foal in *Sawan* and a buffalo to calve in *Magh*.

Ecclesiastical. There are five churches or chapels for Christian worship.—*Church of Englands.* St. James' Church is the parish church, the incumbent being a Chaplain on the Indian Establishment. St. Stephen's Church, built and maintained by the Cambridge Mission for the use of the Indian Christians, is situated in Mission Church Road, Delhi: the services are conducted in Urdu. At Mauza Fatehpur Beri four miles beyond Mahrauli is a small chapel (dedicated to St. B. B. W. Francis) built by the Cambridge Mission for the use of the Christian Colony established there. The congregation amounts to 71, and is under the tutelage of a lay teacher.

Nonconformist.—The Baptist Mission Chapel is in the Chandni Chowk where services are also conducted in Urdu.

Roman Catholic.—The church is situate between the Delhi Bank and the Railway in the charge of a chaplain: the numbers of the congregation vary according to dominant religion of the regiment supplying the detachment for the Fort.

St. James' Church built by Col. James Skinner, C. B., is remarkable for its architecture, being in the form of Greek Cross surmounted by a high dome, which indicates the position of the Kashmir Gate in all views of the city from the Ridge and from the north. The graves of Colonel Skinner and of various members of his family lie to the north side of the church: among these graves is that of Mr. William Fraser, Commissioner of Delhi, murdered in 1835. In the south-east corner of the churchyard is the grave of Sir T. T. Metcalfe, the builder of Metcalfe House; and near the south-west corner of the church is the old gilded ball and

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cross, bearing marks of bullets fired at it in 1857. In front of the church is a memorial cross and inside it are a number of memorial tablets.

The S.P.G. and Cambridge Mission.

The Mission of the S. P. G. in Delhi, now combined with the Cambridge Mission, owes its origin to the zeal of some members of the congregation of St. James' Church, who between 1850 and 1853 raised the large sum of Rs. 30,000 which they made over to the Society for the Propagation of the Gospel. The Society made a further grant of Rs. 80,000 and in February 1854 sent out the first Missionaries, the Rev. J. S. Jackson and A. R. Hubbard, both graduates of Cambridge. Before their arrival, however, the first two leading converts had been baptized in 1852: their names deserve record. One of them, Dr. Chimman Lal, was an Assistant Surgeon and the other, Professor Ramchandra, became well-known as a writer on mathematics, and was successively Professor of Mathematics in the Delhi College and tutor to the Maharaja of Patiala. In 1857 Mr. Hubbard, and two younger men, Mr. D. E. Sandys and Mr. Lewis Roch, who had just joined the Mission, with Dr. Chimman Lal and two ministers of the Baptist Mission, the Rev. Wilayat Ali and J. Mackay, were killed by the rebels, and the Mission totally destroyed. Mr. Jackson's life was saved because ill-health had driven him from Delhi shortly before the Mutiny.

After the re-capture of the city in September 1857 the work was kept together by a small band of Native Christians and enquirers, until, at the beginning of 1859, the foundations of the Mission were re-laid with much careful forethought by the Rev. T. Skelton, Fellow of Queen's College, Cambridge. In 1860 the Mission was joined by the Rev. R. R. Winter, of Hertford Coll., Oxford, in 1862 by the Rev. J. E. Whitly of Queen's Cambridge, and in 1867 by the Rev. H. C. Crowfoot, Fellow of Jesus. Oxford. In addition to educational work among all classes, with preaching and other religious teaching in the *bazars* and *bastis* of the city, one of Mr. Skelton's first efforts was to raise funds for a church to be built in memory of the English and Indian Christians who had lost their lives in the Mutiny. After unavoidable delay, occasioned by the severe famine of 1860-61, the foundation stone of St. Stephen's Memorial Church was laid by Dr. Cotton, Bishop of Calcutta, in March 1865, and the building was first opened for service on the tenth anniversary of the Mutiny, May 11th, 1867.

In 1863 Mr. Winter began medical work among the women and children. Subsequently a dispensary with a few rooms for in-patients was opened in the Chandni Chowk, and a class opened for the training of native women as nurses. In 1873-74, with a view to increasing the points of direct contact with the people, the city and suburbs were mapped out into eight divisions, somewhat on the model of English parishes, while the country round reaching to Rewari, Karnal and Rohtak was divided into six

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Mission districts, of which, however, only two with their centres of work in Mahrauli and Alipur are in this District. An event of great importance for the stability and growth of the Mission took place in 1877, when the Mission was strongly reinforced by a body of Missionaries, chosen in the University of Cambridge and largely supported by the S. P. G. This Mission owes its origin to the efforts of some leading members of the Cambridge University, who thought that the time was come for the Universities to take a more prominent part in evangalising India. They believed their object would be best obtained by a body of men living and working together as a brotherhood, whose endeavours should be directed to higher edcuation (especially of Christian boys and young women), the training of Christian agents for educational and evangelistic work, literary work, and general contact with the more thoughtful natives. At the invitation of the Society for the Propagation of the Gospel, who also came forward with liberal pecuniary help, Delhi was selected as affording a most suitable sphere for realising the above-mentioned object, and the Mission was started in India under Rev. E. Bickersteth, Fellow of Pembroke College, in 1877 with the title of the Cambridge Mission to the North India.

The Memorial stone of a hospital for women, erected in the Chandni Chowk in memory of Mrs. Winter, was laid by Her Royal Highness the Duchess of Connaught, on January 18th, 1884. It was opened in 1885 by Lady Dufferin, and in 1895 a frontage having been obtained in the Chandni Chowk the building was extended from designs made by Sir Swinton Jacob of Jaipur.

In 1891 the death of the Rev. R. R. Winter who had for 30 years been the Head of the Delhi Mission and to whose activity the organisation of the Mission was mainly due, led to a re-constitution of the working basis of the Mission. The Rev. G. A. Lefroy, then Head of the Cambridge Mission was appointed Head of the Delhi Mission and from that time forward the whole work of the Mission in all its branches has been practically in the hands of the Cambridge brotherhood which, with the original organisation, form one Mission carried on since that date under the title of "The S. P. G. and Cambridge Mission in Delhi and the South Punjab." On Mr. Lefroy's succession to the see of Lahore in 1899, his place was taken by the Rev. S. S. Allnutt, the present Head.

The work of the Mission is carried on by clergymen and University graduates of whom a list is given in the margin. Of these the Rev. S. Ghose is an Indian, there are 14 Zenána and Medical Missionary Ladies in the S. P. G. and Cambridge Mission who are working in Delhi.

Rev. S. S. Allnutt, 1879.
" S. Ghose, 1892.
" G. A. Parton, 1896.
" B. P. W. French, 1897.
" A. Coore, 1898.
" N. C. Marsh, 1900.
" C. F. Andrews, 1904.
F. J. Western, Esqr. 1904.
C. H. C. Sharp, Esqr, 1907.
Rev. W. H. Roseveare, 1908.
N. H. Leathen, Esqr. 1909.
A. C. Judd, Esqr. 1909.

Besides these, one Cambridge Missionary is stationed at the Branch Mission at Rohtak (opened in 1894), the Rev. H. Carlyon (1877.) CHAP. I C Population

The following educational institutions are carried on by the Mission, the most important of which will receive notice in Chapter III, Section 3, I. St. Stephen's College with 170 pupils, a High School and six branches with 500 boys, 2 hostels for College and School Non-Christian students numbering over 100 at the present time, a Christian Boys' Boarding School in the S. P. G. Compound with 45 boys, and ten schools for poor boys (mostly of the Chamar caste) with 300 boys besides the general work in the city and country districts. S. P. G. Educational Branch.

Work among the women, besides the medical work already mentioned, is carried on as follows : A Christian Girls' Boarding School with 60 girls, studying up to the Middle Vernacular Standard, a Christian Girls' Industrial School with 45 girls, who are taught sewing, spinning, lace and *qasida* work, and shoe embroidery ; two city schools for Hindu and Muhammadan girls with 100 girls, besides 50 zenána pupils. A recent addition to the female institutions is St. Mary's Home for convalescent converts and teachers, opened in 1900. This has also, since the famine of 1900, taken a number of orphan children, numbering now about 20. The total number of Christians in the Delhi Mission on December 31st, 1908 was 1,171. The decrease since the statistics were given in 1884 is due to the large falling away in 1887 of a number of nominal adherents, but since then there have been 245 adult baptisms.

Further information on the medical work of this Mission is to be found in Chapter III, Section J. S. P. G Medical. Branch.

In 1814, the Rev. John Chamberlain, a Baptist Missionary, then employed by the Begum Samru, at Sirdhana, as a tutor to her son, visited Delhi for the first time. During the six weeks Mr. Chamberlain remained in the city, he preached daily without molestation. He subsequently returned to Sirdhana, and thence to Serampur, where he remained. From 1815 to 1818, preaching was carried on by Mr. Kerr, a Baptist gentleman, assisted by three native converts. In the latter year, Delhi was recognized as a Mission Station in connection with the Baptist Missionary Society in London, and a Missionary, the Rev. J. T. Thompson was directed to assume charge of it. He arrived at Delhi on the 3rd April 1818, and continued to reside there (with a few breaks) till his death in 1850. The first baptism which took place in Delhi (1821) was that of a Rajput woman who afterwards became the wife of a French Officer in the service of the Begum Samru. At the close of 1822, an aged Brahmin followed her example, in the next year another native was baptized, and in 1825 four Europeans and a Brahmin joined the Church. In 1826 the Church consisted of eleven persons. In 1845 a chapel was erected near The Baptist Mission.

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the Royal Palace for the use of the converts. Mr. Thompson died on the 27th June 1850 and from that time to 1854 Delhi remained unoccupied till the Rev. Waláyat Ali, a native convert, was sent from Chitoura to carry on the work. In March 1856 the Rev. J. Mackay arrived. Both these gentlemen together with the widow and two daughters of Rev. J. T. Thompson, were murdered in the mutiny of the following year.

Since the establishment of the Mission in 1818 up to this time (1856), about sixty persons had been baptized, and a native Church formed, schools for both Hindus and Muhammadans had been started in the city, and the translation of the New Testament and Psalms, and several tracts into Hindi and a Hindi-English Dictionary had been printed. The Rev. James Smith, Baptist Mission Society, on his return to India in 1858, immediately proceeded to Delhi.

On his arrival there he found only four persons (one native) fomerly connected with the church, the rest had been killed or scattered. Mr. Smith immediately recommenced daily *bazar* preaching and teaching in the *bastis.* The chapel, which had been greatly injured by the rebels, was repaired and re-opened for divine service. The work was very successful, the first year especially, amongst the *chamars.* Seven Primary Schools were opened by Mr. Smith for the benefit especially of the children of the lower classes. Preaching in their *bastis* was also carried on systematically. During the year ninety-four Christians were baptized (including ten Europeans), and a new chapel erected in the Chandni Chowk. Up to 1874 Mr. Smith was assisted temporarily by several Baptist Missionaries. In that year he was joined by the Rev. R. F. Guyton, and in the following year by the Rev. W. Carey, M. B., who established the Medical Mission that has ever since formed an important part of the Society's operations in Delhi. In 1831 the Rev. Herbert J. Thomas joined the Mission, which two years later lost the energetic leadership of its virtual founder, the Rev. James Smith. But though retired from active service in the scenes of his 24 years' labours, Mr. Smith, by ever ready counsel and occasional visits showed his unabated interest in the work until his death in November 1898. Mr. Guyton also retired in 1889. Mr. H. J. Thomas was joined in the autumn of 1885 by the Rev. Stephen S. Thomas, and in the following spring by the Rev. Henry E. Crudgington, formerly in the Congo Mission in Equatorial Africa, and again in 1893 by the Rev. John I. Hasler, B. A., who remained in Delhi until 1904. Mr. Crudgington was compelled to return to England through ill-health in 1905. The present staff (1910) consists of Revs. J. Thomas, S. S. Thomas, Joel Waiz Lall, M. A., M. O. L., who was ordained in 1898; and C. B. Young, M. A., who came in 1908.

From the first preaching and teaching has been vigorously carried on in the villages around Delhi, on both sides of the river

Jamná. In 1895 the work in and around Palwal in the Gurgaon District, until then an out-station of the Delhi Mission, was separated off and formed into one independent station with its own missionaries. And now in 1910 the work in the neighbourhood of Baraut and Chaprauli in the Meerut District, with its converts, schools, and staff of workers is being similarly separated to form an independent station under the Rev. D. T. Morgan.

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The total number of communicants in the native Christian Church in 1909 was 422 including 165 to be transferred to the newly formed independent station of Baraut.

Another branch of Christian work carried on by the Baptist Mission is that of selling scriptures and other religious books. For several years past the monthly average of scripture portions sold by the Colporteurs, Preachers, and others has amounted to over 150, and of Christian books and tracts too from 600 to 800.

Baptist Mission School.

A prominent feature of the operations of the Mission since its re-establishment after the Mutiny, has been its efforts to educate and evangelise the *chamars*, who form so large a part of the communities in and around Delhi. Besides the eight schools for this class of boys and the *mehtars* carried on in the Meerut Division of the United Provinces, there are five in the city and suburbs, and one in Purana Qila. In all, rather more than 300 boys are being taught the elementary subjects prescribed by the Punjab Government for the five Standards of Indigenous Schools.

For some years prior to 1882 a Boarding School for the sons of Native Christians was established, in order to give boys of promise a further education than was possible in the Elementary Schools above alluded to. In that year the Rev. Guyton started in connection therewith Training Classes for School Teachers and Theological students. This latter Department has been developed and has now become the Training Institution for preachers for the whole of the Baptist Missionary Society's Stations, in the Urdu and Hindi speaking parts of North India. This Training Institution was at first carried on in the Hall and Class Rooms erected for the purpose near the Mission premises at Naqqar Khana on the side of the *maidan* in 1885, but was removed in 1895 to premises rented in the Civil Lines. It is now under the charge of the Rev. Stephen S. Thomas, the Principal, assisted by the Rev. J. W. Lall, M. A.

Baptist Zenana mission.

In 1865, Mrs. Smith, wife of the Rev. James Smith, of the Baptist Mission, Delhi, recognizing the fact that in consequence of the social customs of the country a large number of women could not be reached by ordinary missionary efforts, resolved if possible to gain access to some of these ladies in their seclusion and take to them the instruction they so greatly needed.

Mrs. Smith was assisted in these endeavours by two Indian Christian women, one of whom was Fatima the widow of Waláyat Ali, who fell a martyr during the mutiny. Some difficulty was

CHAP. I. C. Population. experienced at first, but the desire for instruction which the visitors created soon spread, and in 1867, 35 zenánas were regularly visited and a school for Muhammadan girls and women opened, to which about 36 came. The zenána workers then numbered 2 Europeans and 5 Indian women. After a few years it was found desirable to close this school.

In December 1871 Miss Fryer was sent from England as a zenána teacher; she introduced and taught the fine point lace work which has gained prizes in several Indian Exhibitions. The number of houses visited has increased to 70.

In December 1875 Miss Thorn reached Delhi, and commenced medical work in conjunction with zenána visiting. The usefulness of such work is too well known to need comment. The Government vaccinators in those early years found the medical missionary, *plus* a good musical box, most helpful. Frightened parents whose one idea was to hide their little ones were lured to the Mission House and, while listening with wonder to the music which played itself, their children were peacefully vaccinated.

Until 1876 the work of the Baptist Zenána Mission was entirely amongst Muhammadans since then the attitude towards female education has changed slightly and other pupils are being taught. During that year invitations were received from several Hindu families and the interest amongst them increased so rapidly that Hindu pupils now exceed, in numbers, the Muhammadans. Amongst them there are many especially in the buniah caste who possess great aptitude for learning and in their interest a *parda* school was opened in 1883. From this school two girls passed the Boy's Middle School Examination in 1887, a feat which no *parda* pupil in Delhi has since accomplished. Their success brought offers of silver medals from several prominent Hindu gentlemen who said very truly that the girls had done their community honour. Nevertheless they utterly refused to allow the girls of their own families similar educational advantages. The present number in the three *parda* schools is only 115: these schools are under Government inspection with grants and scholarships according to results.

Zenána pupils are plentiful only limited by the power to visit. Their numbers are no indication of a real desire for knowledge seeing that the pupil herself makes the smallest effort to obtain it. There is also work carried on amongst the *chamarins* in different parts of the city, the women are gathered in groups in their *bastis* for instruction and there is a school especially for the girls.

Baptist Mission Girls' School. Two years prior to the commencement of zenána work, that is in 1863, a Boarding School was commenced in the Baptist Mission compound for the daughters of Native Christians who lived at a distance. It was under the care of Mrs. Parsons, the wife of one of the Baptist Missionaries. It opened with 8 girls. They were taught Urdu, Hindi, English, cooking and other domestic

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duties. It was afterwards removed to a hired house in Daryaganj, with an increase of numbers. In 1883 the present permanent dwelling place was built by Miss Wells of Nottingham, adjoining the Baptist Zenána Mission House.

The school now numbers 117 boarders, of whom 68 are orphans. Orphans have always been taken by the Mission and have proved most satisfactory, none of them ever express the slightest desire to return to the old heathen life. The girls are some of them, trained as pupil teachers, some sent as students to the Medical School, some become nurses, and all ultimately marry. Of the Medical Students, one obtained the Viceroy's Medal in the Government School at Agra, and was in charge of the Dufferin Hospital in Delhi for many years. Four others are in practice elsewhere.

Evangelistic work is carried on in the Delhi District in the cold season, the Missionary and Biblewomen living in tents and getting everywhere a hearty welcome. There is work also at Shahdara, Shahmardán, Paharganj, and Purana Qila. The vitality of the Delhi Mission has proved itself in the establishment of vigorous stations at Bhiwani and Palwal. In 1887 Miss Angus, after 5 years' work here opened a Zenána Mission at Bhiwani. She was joined there by Miss Theobald (also from Delhi) in 1890. Besides zenánas and schools they have now a hospital with two doctors. Miss Theobald has received the Kaisar-i-Hind medal for famine relief work. Misses. Fletcher and Allen removed from Delhi to Palwal in 1889, and were compelled almost immediately to open a dispensary, though neither of them had much medical knowledge. There is now a hospital with two doctors, nurses, etc. Much of their attention has always been given to the villages which are visited more or less all the year. In two villages there are dispensaries also, " Sunday Schools " held on Tuesday and Friday, respectively, with an attendance of 150 to 200 boys and girls. These were commenced at the request of the villagers.

Baptist Mission Hospital.

Information concerning the Baptist Mission Hospital will be found in Chapter III, Section J.—Medical.

Occupations. Table 17, Part B.

The population may be classified under the main heads as follows :—

1.	Agricultural	43·5
2.	Industrial and Commercial	39·9
3.	Transporting	2·4
4.	Banking, Brokerage, etc.	2·1
5.	Professional	2·6
6.	Administration	1·8
7.	Independent	0·8
8.	Personal servants	2·9
9.	Others (chiefly unskilled labourers) ...	4·0
	Total ...	100 per cent.

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The men of the agricultural population are employed in agricultural field work and in taking their grain in carts to the nearest market. They rise before dawn and go to plough in the fields. In the hot weather the work begins at about 3 A.M. and goes on till about 10 A.M.

The women of the agricultural population also assist in the lighter work of husbandry but never do any ploughing or work on the wells. They feed and water the cattle, prepare oilcake (*sani*), milk the cows, make butter, sweep out the house, bring the water, prepare food for the family, collect cow-dung, grind the corn and even help the reapers. Thus the wife of a Jat has often more to do than her husband. Sayads and Muhammadan Rajputs who observe the *parda* system have not the same advantages in this respect: their women cannot give such help owing to their being confined to household duties.

The non-agricultural population require no special description.

Division of time.

The divisions of time or hours of the day are as follows:—

(1).—*Pasar*	...	= 4 *gharis* before break of day.
(2).—*Pili phathi* or *tarke*	...	= The bursting of the yellow dawn.
(3).—*Basi ka wakt*	...	= Time of taking the early morning meal, *choti haziri*.
(4).—*Kalewar*	...	= Time of the morning meal.
(5).—*Dopahar din*	...	= Noon.
(6).—*Dhala hua din*	...	= 1½ or 2 P. M.
(7).—*Tisra pahar*	...	= About 3 P. M.
(8).—*Pichla pahar*	...	= From then to sundown.
(9) —*Handian ka wakt* or *Dhorane ka wakt*	...	= A *ghari* or ½ a *ghari* after sunset.
(10).—*Pahar rat gaya*	...	= About 9 P. M.
(11).—*Sota*	...	= Sleeping time.
(12).—*Adhi rat*	...	= Midnight.
(13).—*Paharka tarka*	...	= A *pahar* short of dawn.

The local names of the days of the week are, beginning with Monday, *Somwar*, *Mangal*, *Budh*, *Brihaspat*, *Sukr*, *Sanichar*, *Aitwar*, and the word for these is *bar* (Panjabi *war* or *var*). The day of the month is *tith*, the month being as usual, divided into two periods of fifteen days each (*pandrawara*), the fortnight while the moon is crescent being *sudi*, and the waning time *badi*; the *badi* is reckoned as the first. Once in three years comes the intercalary month, *laund*, which, when it comes in *Sawan*, *Bhadon*, *Katak*, or *Magh*, is reputed to bring a famine with it, as affirmed in the lines:—

"In the year with two months *Sawan*, *Bhadon*, *Katak*, or *Magh*, go and sell your gold ornaments and buy grain."

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Food.

The bulk of the food eaten by *zamindars* consists of *chapatis* made from flour : the well-to-do people consume wheat flour, but the poorer classes have to content themselves with flour made from the cheapest grain of the moment. In the cold weather beginning in October the agriculturist will eat *jowar* or maize mixed up with some green food : as the *rabi* harvest ripens by April the *jowar* is changed for the grains in season : wheat alone, or mixed, for the rich, barley or *bejhar* for the poor. *Bajra* bread is also good for the cold weather : rice is a luxury. Milch produce in the shape of milk and *ghi* is consumed all the year round : coarse vegetables such as onions and turnips are much appreciated and are consumed regularly by those who can afford them. Meat is not eaten at all by the orthodox Hindus and not openly by the unorthodox : Muhammadans eat meat so far as means allow, but the main meat-eaters are the lower classes of village menials.

Meals are taken twice in the day—in the morning about ten, and in the evening somewhere about seven or eight. If a man, however, has hard work, he eats something* (*basi* either bread or *khichri* made from *bajra*, or *dalya* of *makkai*, or *dalya* of *jowar* or *lassi*, (*sit* or *chha*) before starting for his work, or half an hour after he has begun it. If he is well-off, he may treat himself to a sweatmeat ball (*ladu*) of *gur*, *til*, and wheat meal. This is considered a morning comforter, and very strengthening. His morning meal will be brought by his wife or daughter, or some other woman of his family, or a boy ; his food being washed down by drink from the well, or if none is near, a pond, or he may have brought water from his house. The *zamindar*, be he well-to-do or poor, will generally have green food for part of his daily diet. When this is mixed with meal, he calls it *sag*, and when it is the simple plant boiled in water its name is *bhuji*. This last is made often from the tender plant of the *panwar* (*Cassia occidentalis*, see Punjab plants, p. 62), but this is only in the beginning of the rains ; afterwards, when the fibres of the plant get strong and tough, it becomes unfit for such use.

Gur when it has to be bought, is eaten as a luxury in the cold weather by men well-to-do ; but if a *zamindar* is making *gur* at his *kolhu*, both he and his family will generally turn the product to domestic use in the different stages of its making. His shivering urchins standing in the frosty air of the early January morning over a smouldering fire near the *gurgoi*, will be nibbling the long stalks (*pachganda*), and the raw juice will be mixed by the good wife with rice (*ras ki khir*), and served up as a savoury dish for the husband at his early morning meal, or mixed with milk it is a warming drink (*tasmei*). Again when the boiling is going on, and the *gur* is nearly made, a favourite comestible is obtained by mixing it with milk, and boiling it to a thin consistency. This, which is called *shira*, is eaten with bread, much as we eat honey.

* *Basi* means stale, but in this sense it includes *sad* (which is, strictly speaking, fresh cooked food).

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Men, women and children eat the same food. The full food for a man is a *ser*; the women generally as much as the man, and no wonder, for your good Jat wife is by no means a lazy creature or devoid of muscle. When young, she draws water for her family, it being considered a shameful thing that a man should do this office for himself; he will avoid the *chaupal* in taking water home. Young women and old alike spend an hour or two in grinding, early in the morning. Going through the village in the early dawn or dark, very often the only sound is that of the woman's industry at the mill. Five *sers* is an ordinary task, but if need be she can grind ten.

The general ways of cooking food are: (1) *roti*; (2) *dalya*; (3) *khichri*. The peculiarity of *dalya*, which is generally made from wheat, *jowar*, *makkai*, is that the grain is bruised rather than ground; it is then thrown into boiling water in a cauldron (*handí*) and boiled with salt and *dal* of *mung* or *moth*. *Khichri* is made from *bajra* mixed with *mung ki dal* and pounded in a mortar; when this is fine it is thrown into a vessel in the same way as *dalya*, but is cooked longer, and it should be cooked slowly; it should be thick enough to stick on a wall when thrown there. *Dal* is made of *mung*, *moth* and *urd*: the grain used for the purpose is merely split up, not ground. It is considered better to make the bread, one part of *chhanna*, with two of wheat, salt being mixed also; this is called *misi* by *zamindars*, *besni* in towns. The thick *roti*, made from wheat alone, is called *páni ki roti*; the thin, like our *chhapati*, made after rolling out, is called *phulka* or *manda*.

The following estimate of the consumption of food by the people is a fair one:—

Estimate of food grains consumed in a year by an average family of five persons.

AGRICULTURISTS.			NON-AGRICULTURISTS AND TOWNS-PEOPLE.		
Daily.	Yearly.		Daily.	Yearly.	
	Grain.	No. of Seers.		Grain.	No. of Seers.
Seers.	Wheat ...	320	Seers.	Wheat ...	480
Man $1\frac{1}{4}$	Barley ...	320	Man $\frac{3}{4}$	Barley ...	120
Woman 1	Gram ...	160	Woman $\frac{5}{8}$	Gram ...	160
Old person $\frac{3}{4}$	Bajra ...	280	Old person $\frac{5}{8}$	Bajra ...	80
Two children 1	Maize ...	160	Two children 1	Maize ...	80
	Jowar ..	120		Jowar ...	40
Total 4	Pulses (inferior)	40		Pulses ...	80
	Miscellaneous...	40		Miscellaneo s	40
		1,440 seers = 36 mds.			1,080 seers. = 27 mds.

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The ordinary working dress of the Hindu *zamíndár* is only the *pagri*, the *dhoti* (cloth worn round the loins and middle), and the *kamari*, a short vest with sleeves. Sometimes he takes the *kamari* off at work, especially in the hot weather; but he will always wear it when cutting wheat, to save his body, moist with perspiration, from the dust coming out of the falling sheaves. On occasions of ceremony, however, such as a holiday, at a fair, or a marriage, he will put on a longer coat called *angarkha*, which comes down below the knees, and in the cold weather this is often lined like a *razai* with cotton stuffing. This garment sometimes takes the same pattern too as our *razais*, and then has a rather comical effect; at others it is a gorgeous blue or purple which strikes the eye from a distance. The *chadar* too or cloak is worn across the shoulders over the *angarkha* and is really the most picturesque part of the *zamindar's* costume. In the cold weather he wears a *razai* wound about him like a cloak (*lihaf-saur*). *Paijamas*, i.e., trousers tight below the knee and very loose at the hips, are worn by luxurious persons. The only difference in the boy's dress, as compared with the man's is that he wears a *langoti* round his middle instead of the *dhoti*, which is assumed when the boy is changing into the young man at 17 or 18 years of age. The women wear the *gagra* (also called *tukri* or *lahnga*), or loose drawers; the *angi*, a short-sleeved vest which cover the breast but leaves the chest partly bare and the abdomen wholly so: and the *orhna* or cloak-veil which comes over the head and body too. The *angi* and *orhna* in the case of well-to-do *zamindars* are often handsomely made of fine linen.

The Muhammadan *zaminda* wears the same clothes as the Hindu, and even fastens his *pagri* in the same way, so that it is not always easy to discern one from the other by his appearance: his *kamari* or *angarkha*, however, is fastened differently, the Hindu fastening on his right side, and the Muhammadan on his left. The Muhammadan women wear tight trousers (*paijamas*) and in place of the *angi* and *kurti*, which is longer than the other, coming down over the stomach and waist, the chest too is covered. Their costume is completed by the *orhna*, the only difference being in the prevailing colour; a Muhammadan is very fond of blue; the Hindu inclines to saffron. The Muhammadan boy, like his Hindu neighbour, wears a *langoti*, instead of *dhoti*, otherwise he dresses like his father. Shoes are worn by both sexes of all ages, but a *zamindar* generally finds the bare foot best for a long journey, in which case he carries his shoes in his hand. These shoes are rough and clumsy, being furnished by the village chamar who generally gets grain at the harvest as payment for his total services without going into details; if, however, he is paid in cash, the price of a pair of shoes is about a rupee; if especially good, rather more. They are made of buffalo, cow or bullock hide (the Hindu not objecting to use the leather in this way), and last about four months; the *zamindar* generally requires three pairs in the year.

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The taste for cloth manufactured in Europe and for clothes of an English cut, especially waist-coats and coats, has spread considerably of recent years. The women still dress in country cloth but the majority of men's clothes are usually of *bazar* cloth.

Women's ornaments.

Hindus and Muhammadans alike wear ornaments in the ear and nose, on the forehead and crown of the head, the neck, chest, upper arm, and wrist *kalai* or *pauncha*), thumb (*angutha*) and finger, ankle (*lakhna*) and toe (*ungli*). Gold is not worn on the foot, but any of the other ornaments may be made of it if the wearer is rich enough to afford it: for the most part, however, the material is silver; poor people have them of pewter (*rang*) or bell-metal (*kansi*). The number of the different kinds is very large, but it will be enough to mention those most commonly worn.

(1).—On the crown of the head, on the *choti*, is worn a silver or bell-metal ornament also called *choti*.

This is not now in fashion among the better *zamindars*: the poorer caste still keep it up; a bell-metal *choti* costs five or six annas; for silver ornaments the price including the making up is, as a rule, Re. 1 per *tola*; Muhammadans have the same name for the *choti* and use it without any reference to caste.

(2).—On the forehead is *munh ka saz*, a chain ornament fastened on the top of the head, and coming down on each side round to the ear where it joins the earring. The Muhammadans wear it, and use the name.

(3).—The earring for the Hindu is the *bali* and for the Muhammadan, *jhumka*: the shapes of the body of the ornament are slightly different, and the little balls are hung from it in different fashion, the *bali* having three balls, *gongru*, in a chain, and the *jhamka* having no chain, but the ball immediately pendent from the main part. The ear also is differently pierced: the Hindu has a hole in the lobe and in the outer rim at the top; the Muhammadan has some 15 or 20 perforations all the way up the cartilage.

(4).—For the nose there is the *nath*, a name common to Hindus and Muhammadans; it is a ring ornamented with a picture, generally of a parrot for Hindus, or imitation jewels. The Muhammadan wears the imitation jewels, but not pictures.

(5).—On the neck is the *hansla* or *hansli*, the usual horse-shoe shape, worn alike by Muhammadans and Hindus.

(6).—On the chest the women wear the *jhalra*, which may be a rupee or other ornament hung on a string round the neck.

(7).—On the upper arm is the *bazuband*, a jointed ring, and *tadd* ('*d*' pronounced very heavy) a broad plain ring. The Muhammadans wear only the first; Hindus both. **CHAP. I C. Population.**

(8).—On the wrist is the *matti* or *kangni*, worn generally by Hindus only. Sometimes, however, the Muhammadans also wear it. The Muhammadan speciality here is the *naugiri*, a bracelet of nine pieces strung on a string: the *kangni* is all one piece.

(9).—The thumb ring with mirror (*arsi*) is worn alike by Hindus and Muhammadans.

(10).—Finger rings are worn (*anguthi*) on any finger by both classes.

(11).—On the ankle is the *pazeb* (or foot ornament), a ring with pendent balls, alike for Hindus and Muhammadans.

(12).—On the toes there are the *challa* and *bichua* for Hindus. The Muhammadans wear only the first, which is plain, while the other has three bars of raised work. The *challa* is worn on any toe, but when the *bichua* is used it occupies the second, third and fourth.

Men's Ornaments.

All these are worn by women only—men, whether Hindu or Muhammadan, wear the following :—

(1).—On the chest the *tora* or *kanthila* made up of five chains with two blocks (*singhara*) where they fasten. The chains hang in front, the blocks settle down on the top of the chest on each side.

(2).—The Hindu may wear a rosary (*mala*), one bead of gold and the next of coral, the Muhammadans do not wear this.

(3).—Both wear the *kare* on the wrist, a plain bracelet, or ornamented, it may be with some representation of a lion.

(4).—There is the signet ring (*mohr*) worn by all or rather possessed by all; it is not seldom kept in the *pagri*.

(5).—The big toe, whether belonging to a Hindu or Muhammadan, may get a *challa*.

Though these ornaments are said to belong to men, it is not a common thing to see a Hindu *zamindar* wearing them unless he is a dandy or dissolute fellow. Very few of the better class use them. Boys wear them up to about eighteen and earrings to boot, but leave them off gradually as hair comes on the face. Earrings go first, then the bracelet: the youngster may keep the chest ornament a little longer if he likes, but he will get talked about and perhaps laughed at if he wears ornaments when he has become a father.

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Houses.

There is no great difference in the style of houses of Hindus and Muhammadans. The main thing that causes variations is the pecuniary condition of the house-holders. The best way of noting the different parts of the *zamindars'* dwelling will be to give a rough description of a sample house belonging to a well-to-do Jat. In the village main street, its front will be a blank wall some ten or twelve feet high, with a door somewhere about the middle. Turn in here and you find yourself in the *dahlij* (or *dahlij*), which is a kind of porch; it is also called *deorhi* as in parts of the Panjab. This is roofed with rough wooden rafters (*kari*), and opens on the inner side on the courtyard of the house. If it is deep, it will have supporting pillars (*thamb* or *situn*), supporting the main cross beam (*shatir*) which runs along its length. In the *dahlij*, horses and cows are fastened up, and the *takht*, a large seat, is often put there handy for a lounge or a meditative pull at the *huka*. In our friend's house, if you look round to the left, *i.e.*, the north end of the *dahlij*, you will see *akhor* or *than* or manger put up in the corner. This is generally a box-like erection made of earth; the *than* for horses is, say, four feet high, the *khor* for cattle lower, either solid, or hollow underneath to admit of an arched recess (*tak*) a convenience which a thrifty *zamindar* is very fond of, and will always get into walls and spare places when he can. At the right hand end of the *khor* is the *kundi*, a hollow made in the top of the manger for the grain of the animal (when he gets any). The rest of the manger is kept for fodder, and on the outside an edge is made either of wood or earth to prevent the food from falling when tossed about in eating. The inner door of the *dahlij* is not generally exactly opposite the street door, but on one side, so as to make a screen for the *chauk* where the women and children of the house pass much of their time, and, in the hot weather, sleep; the cattle too stand about in it. Going across the yard, we come to an ante-room or verandah, roofed like the *dhalij* and leading to inner rooms or *kothas* (also called *obaras*). In the corner of the *dalan*, or in a corner of the inside room, will be the *kothi* or house-granary, made of hard earth well-mixed with chaff and cowdung, and built up very carefully by the women-folk a span height at a time. It looks white and clean, and stands four feet high or more. A good wife will generally adorn her *kothi* with fantastic representations of peacocks, parrots, or other birds, done in chalk or with the red earth (*gerhu*), which is sold in the *bazar*: a big *kothi* will hold 50 maunds of grain, and an average one about 30. Its lid is called *pahan*. The cooking of the family is done in the *dalan*, or, as is very often the case, the room at the east end of the north *dalan* will be open to it, and the cook-room there (*rasoi*). The rooms, which are here shown at the east end, are the principal rooms of the house. Their chief furniture will be *charpais* or *kat*, one for each member of the family; one or two low stools for the women to sit on (*pidha*); the cotton spinning wheel (*charkhi*), and the women's clothes box, a wicker basket some two feet high (*patiar*); the men's clothes are kept in a locked box,

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together with ornaments and papers or other property of value. There is generally too a *chaj* or fan made of reeds, and its joints fastened with leather. For getting on to the roof, which is used for storing *jawar* stalks, and sleeping in the hot weather, there is the *parkala*, a rough set of steps built up into the inner side of the *dahlij*. The water for household drinking is kept in an earthen vessel (*painda* or *matka*) kept in the *rasoi* : it is brought twice daily, morning and evening, by the women from the village well.

The roofs of the houses are flat so that there is a space available for the storing of fodder, drying of grain and other agricultural produce, and in hot nights the men's *charpais*. In the well-to-do villages houses are found with two stories, the upper one containing small chambers.

Household vessels.

The general name for household vessels is *bartan*, but this means properly anything *used* or *in use* (*bartna—bartawa*). The earthen vessels collectively are *basan*, and the metal ones *kasan*. Taken separately there is first :—

1.—*Bartna,* of brass (*degchi* for Musalmans), for cooking *dal* and *khichri*—of small size—its lid is *dahkni*.

2.—*Tokni,* of brass (*degcha* for Musalmans) for cooking rice and *dalya*—large.

3.—*Tokna* (*deg* for Musalmans), the same but larger.

4.—*Thali* (*rikabi*), of *kansi*—a cauldron.

5.—*Bela* or *katora* (*pyala* for Musalmans), of brass or *kansi*—for drinking milk or *sit* (*lassi*)—*katori*, when of a smaller size.

6.—*Lota* or *banta* (*badna* for Musalmans), drinking vessels of brass.

7.—*Abkhora,* very small like a tumbler in shape aud size—of brass.

8.—*Chamcha,* a brass spoon for stirring the food being cooked.

9.—*Parat* (*tabak* for Musalmans) of brass, a tray in which the flour is rolled before cooking.

10.—*Bilomini,* or *churn,* an ingenious instrument, which however is well known.

11.—*Tawa.* An iron griddle on which the bread is cooked.

12.—*Chimta.* The iron tongs.

There will, of course, be a grinding mill *chakki* to give the women something to do.

Disposal of the dead.

The Hindu thinks the corpse should be burned at once on the death occurring, the unpleasantly suggestive reason being given that if worms are bred in the dead body than other animals are burned with it. His nearest male relatives bathe the body, and put clean clothes on it with a *chadar* (not shoes) covering the feet ; a rough stretcher (*pinjri*) is made and on it cotton is laid to make it soft, and it is shouldered by four near relatives who take it to the cremation ground (*marghat* or *chihani*) ; the eldest son or nearest relative sets fire to the clothes, and a watcher is left by the fire three days to see that it does its work ; he may be any relative

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except the son-in-law (who is not of the same *got*). The bones that remain unburnt are called *phul*, but the name properly is confined to the bones on the fingers and toes. It is a favourite act of filial piety to take the *phul* to the Ganges, and if a man is well-to-do he will almost certainly build a kind of memorial or *mausoleum* (*chhatri*) over the spot where the corpse was burnt. In such case of course the cremation has taken place on private land, not on the ground like the *marghat*.

Since fuel has become so valuable the poor villagers within easy reach of the Jamna carry their dead to its banks where the body is cast, partially burnt only, into the river. Hindu children under twelve years of age (except married boys) are buried instead of being cremated.

The Muhammadan corpses are washed and dressed in the same way as already described before being buried : prayers are read at the graveside as is usual with men of this faith ; at the time of burial the chief mourners distribute alms in the shape of food or grain and sometimes even copies of the Quran.

Ceremonies after death of relations.

Thirteen days after a death the Jat feeds Brahmins; and *hom* is performed as at birth. The Muhammadans perform this kind of charity to *fakirs* on the twentieth and fortieth days. The Hindu continues his alms once a month for a year, *i.e.*, till the anniversary after death (*barsodi*). On the fourth anniversary (*chaubarsi*) he gives a cow to Brahmins and clothes. After this, once a year he has to feast the holy men, and the day is called *khiyai*.

Amusements.

The daily life of the ordinary cultivator is decidedly monotonous, a marriage or a fair giving an occàsional diversion. People often assemble to listen songs sung by friends or by '*Mirasis*' and '*Doms*' who recite the love tales of "Hir Ranjha" and others to the accompaniment of a fiddle (*sarangí*) or a tambourine (*dhol*). Occasionally jugglers *bázigar* visit a village and the people collect to see their crafts.

The Jat boys play hockey (*gend khuli*); but the goals on either side are as wide as the place played on, and not limited to the narrow space of the English game : another game, very much answering to the fine Punjabi game of *pitkaudhi*, is *kabadhi* or touch. The party is divided into two sets each in their base, and when a man is sent by one set, one of the other set goes after him to touch him, and after touching him to get home to his own base. The other man, however, having been touched closes with him to prevent this.

Fairs.

In India fairs have for the most part a religious origin, being connected with some shrine or other object of religious generation, but when thousands of people are collected, it is natural for traders to come also, finding special opportunities for selling their

wares. In Delhi, however, there is very little trading done at the fairs, which are looked on more as holiday gatherings than anything else. They are indeed a great feature in the social life of the *zamindar*, and though no doubt they bring abuses in their train, and are partly responsible for increased expenditure and occasional thriftlessness, yet it is hard to see the pleasant throngs of holiday-makers crowding the roads on their way to them—father, mother, and children all decked out in their best clothes, trudging along together, and a merry laugh now and again breaking out from parties here and there as one tells some trivial story to beguile the way, without feeling that there is much innocent amusement and relaxation possible and often actually realized in this way. A list is given later of 34 fairs which take place periodically in various parts of the District. They differ of course much in importance, and many are of purely local interest; yet within the narrow circle of two or three miles the advent of the fair-day is regularly observed, and in any matters concerning the *zamindar* must certainly be taken into consideration. The most important gatherings are those at Mahrauli at Bahapur, some six miles south of Delhi, and at Sonepat. The fair at Mahrauli especially is a favourite resort for the Delhi people; the great one is in *Sawan* and is fixed yearly by popular consent for some week in that month. It is called the *pankha mela* because *pankhas* are carried in procession on Wednesday to the Hindu temple, Jog Maya, and on Thursday to the shrine of Qutb-ud-din for the maintenance of which a tolerant Government allows a *jagir* of Rs. 2,000 a year. The fair at Bahapur occurs in Chet on the 8th and 9th days of the moon, and on the corresponding days in Asauj. This is also a religious meeting; the origin of its localisation at Bahapur is said to be that a *raja* in olden time saw a vision of the goddess Devi on the spot, and forthwith, built a shrine. Subsequently to this *raja* Kidarnath erected a temple of masonry and the fair is said to have been held continuously since then. The fair at Sonepat is held on the 11th day of the *muharram*. Offerings of sweetmeats, bread, &c, are made at the shrine of Nasir-ud-Din the local saint, who is said to have made a *jihad* upon the Hindus and to have met with a martyr's death.

A local cattle and horse fair is held usually in February in Delhi (outside the Mori Gate) at which prizes are given by the District Board. The attendance is not good and is seldom that many really good animals are produced. On the second day the sports held on the Tís Hazárí Midán attract large crowds who enjoy especially the tent pegging, the tugs of war and the fire-works: —

Statement of Fairs.

No.	Village.	Occasion of Fair.	Time of year.	Average number of persons attending.	Duration.	From what parts.	REMARKS.
1	2	3	4	5	6	7	8
						TAHSIL SONEPAT.	
1	Lahrárah ...	For worship ...	15th Chet ...	1,000	1 day ..	Sonepat and Rohtak ...	A small fair held in honour of Káli Deví. Notan Dás was a *fakir* who being very devout burnt himself alive, and Raja Arjandeo built a house over it, and the fair was started to commemorate the story.
2	Chatáná ...	...	Twice a year on 22nd of Chet and Asauj.	1,000	1 day ...	Sonepat	A small fair held for the worship of Káli Devi at a *pakka* shrine. History not known.
3	Mawai ...	For making offerings.	Twice a year on 29th Chet and Asauj.	1,500	1 day ...	Sonepat and Pánípat ...	This is a fair held in honour of Baba Zinda who buried himself alive like him of Labrárá.
4	Jawáhari ...	To make offerings to the goddess of small-pox.	7th Chet	600	1 day ...	Sonepat	This is a small fair kept chiefly by women to celebrate the worship of Mátá the goddess of small-pox.
5	Kundal ...	For worship ..	Twice a year on 13th Sáwan and 28th Phágan	1,000	1 day ...	Sonepat and Delhi ...	A small fair held for the worship of Mahádeo.
6	Kimáshpur ...	...	21st Bhádon ..	500	6 hours...	Sonepat	A gathering held to celebrate the memory of a *zamindar* whose only name now known is Bábá. When he died several neighbours had dreams which came true, so they concluded he had something of the nature of divinity and started the fair for his worship.
7	Mehndipur ...	Bathing ...	Twice a year on last day of Kátik and 25th of Jeth.	5,000	1 day ...	Sonepat and Kotáná ...	This fair is for bathing in the Jamná. Bráhmins get food on such occasions. On Sundays all the year round people come and bathe here.
8	Sonepat ...	Urs of Násir-ud-Din.	11th Muharram.	5,000	1 day ...	Sonepat	This is a well known shrine in honour of Nasir-ud-Dín whose story has already been told.
9	Sonepat ...	Urs of Mirán Mukand.	14th Muharram ...	1,000	1 day ...	Sonepat	A smaller fair held in memory of a companion of Nasir-ud-Dín of less fame, but a martyr also.

10	Sonepat ...	Pleasure ...	Last day of the month Sáwan.	600	1 day ...	Sonepat	A new fair, as yet small, started by the Hindús (perhaps in envy of the Muhammadans). It is held at Shimbudiál's tank.
11	Sonepat ...	...	29th Bhádon ...	600	1 day ...	Sonepat	The Saráogís here worship at Paras Nath's shrine, and strangers come to look on.
12	Sonepat ...	Pleasure and worship.	Asauj	1,000	11 days...	Sonepat	A small fair held during the Rám Lìlá.
					TAHSIL DELHI.		
1	Alipur, Pilanji Hassanpur.	Worship ...	In Poh 1st Sunday after new moon.	2,000	1 day ...	Delhi	A religious fair held to celebrate the finding of an image of Bhairon, attendant of Kálí. Some one dreamt that a shrine should be built on the spot in order that wishes and vows might be fulfilled. Hence the shrine and vows are (sometimes) met by fulfilment of wishes.
2	Nángal Dewat	Worship ...	15th of every Hindu month.	100	6 hours...	Neighbouring villages ...	A Hindu gathering in obedience to an order received from some Sayid who died "possessed"; only a small fair.
3	Sherpur Kalán	Worship ...	8th Chet ...	100	6 hours...	Delhi	A small affair celebrating the discovery of an image of Kálí. Somebody dreamt (as usual) that a fair ought to be held here.
4	Jharauda Kalán	Worship ...	Twice a year on 21st of Asauj and Jeth.	4,000	2 days ...	Neighbourhood of Delhi and Rohtak District.	A considerable gathering to honour the memory of a *fakír*, Haridas.
5	Isápur ...	Worship ...	17th Bhádon ...	500	1 day ...	Dhandásá, Malakpur, Ojwah, Shamspur, Isápur.	A religious gathering at a tank called 'Búre Bábú' after a *fakír*.
6	Khandrát Kalán.	Pleasure and religion.	15th to 25th Asauj...	10,000	11 days...	Delhi and its neighbourhood, Gurgaon, Meerut, Ballabgarh and Sonepat.	Hindús worship, and Muhammadans amuse themselves at this fair held in honour of Rámlílá, a very important fair.
7	Bánskaulí ...	Pleasure and science.	Last day of Asauj ...	2,000	1 day ...	Delhi and its neighbourhood.	A religious fair at which weather prognostications for the current year are made. Bráhmins take a stick with a bit of rag on it to the top of a hill, and anxiously consult as to whether the wind which blows it denotes a good wind for the year, for crops, rain, &c.

Statement of Fairs—concluded.

No.	Village.	Occasion of Fair.	Time of year.	Average number of persons attending.	Duration.	From what parts.	REMARKS.
1	2	3	4	5	6	7	8
				TAHSIL DELHI—*concluded.*			
8	Bánskaulí ...	Worship and pleasure.	Last day of the month of Sáwan.	1,000	1 day ...	Delhi, Meerut and Bulandshahr.	Low caste people worship on this occasion, *kumhárs*, *fakírs*, barbers, &c.
9	Narelá ...	Worship ...	Twice a year on 21st of Chet and Asauj.	1,500	2 days ...	Delhi, Sonepat and Rohtak.	Worship is celebrated of an image of Deví Mátá, and offerings are made which the Narelá *zamíndárs* take.
10	Narhaul ...	Worship ...	Weekly on every Tuesday.	400	6 hours...	Delhi and its neighbourhood.	A small affair every Tuesday at the shrine of Hanúmán.
1	Narhaula ...	Worship ...	28th Chet to 30th Chet.	2,000	3 days ...	Delhi and neighbourhood.	A religious fair for the worship of Deví.
12	Bánskaulí ...	Urs of Sayyid Hassan.	22nd and 23r Shábán.	2,200	2 days ...	Delhi and neighbouring country.	This is a Muhammadan fair—the attendants of the shrine of Sayyid Hassan cook food and distribute it to the visitors, who make offerings. Fire-works are let off by the men who trade in them.
13	Jahán numá ...	Worship ...	7th to 12th Rabi-ul-awwál.	2,000	6 days ...	Delhi and surrounding country.	Another Delhi fair held in honour of Muhammad.
14	Nizámpur ...	Urs of Sultán Nizám-ud-dín Auliá.	Twice a year on 17th and 18th of Shawwál and Rabi-ul-saní.	...	...	Delhi and neighbouring villages as well as *fakírs* from all quarters.	Same as No. 12, but the man honoured is Sultán Nizám-ud-dín.

15	On Karnál road from Láhori Gate of Delhi to Sabzímandí.	Pleasure ...	Twice a year on 5th of Asauj and Chet.	1,000	6 hours...	Delhi	A pleasure fair, but an occasion of religious worship to people of low caste, such as sweepers, who carry pennons made of sticks and rags in honour of their *Pír*.
16	Jahán numá	Pleasure ...	Weekly every Friday.	3,000	3 hours...	Delhi	This is a fair for wrestling—the city people turn out every Friday in good numbers to see it.
				TAHSIL BALLABGARH.			
1	Mahrauli ...	For pleasure ...	Wednesday & Thursday in Sáwan.	30,000	2 days ...	Delhi, Gurgaon, Faridabad, Ballabgarh, Badarpúr.	This fair is not of ancient date. Akbar II used to reside at Mahrauli in the rainy season and started the fair. On the Wednesday the Hindus take *pankhas* to the temple of their deity Jogmayaji, and on Thursday the Muhammadans do the same to the Tomb of Qutb-ud-Din.
2	Bahápur ...	For worship ...	Twice a year on 23rd and 24th Chet and 23rd and 24th Asauj.	20,000	2 days ...	Delhi, Ballabgarh, Sonepat, Gurgaon, and Palwal, &c.	This is a religious fair, held twice a year. It is said that here in old times a Raja once had a vision of the goddess Kali and built a shrine on the spot. Raja Kidarnath subsequently erected a *pukka* building. The place is one of considerable local repute.
3	Badkhal ...	For bathing ...	21st Bhádon ...	5,000	1 day ...	Ballabgarh, Gurgaon, Palwal, Faridabad & Núh.	People come to bathe at a spring which issues from the hill side in this village, and a fair is held once a year on the spot. There is no temple.
4	Dhauj ...	To make offerings	21st Bhádon ...	6,000	1 day ...	Ballabgarh, Guzgaon, Palwal, Farídábád, Núh, Ferozpur and Alwar.	There is a *pípal* here, sacred to Kali Devi, and people stung by snakes are said to find a cure from her help, if they vow to sacrifice at her shrine.
5	Farídábád ...	For bathing ...	Twice a year on the last days of Chet and Asauj.	2,000	1 day ...	Ballabgarh, Farídábád, Badarpúr and other neighbouring villages.	There is a shrine here, attendance at which, with bathing in a spring near the shrine, is said to cure itch and such like diseases.
6	Ballabgarh ...	For pleasure ...	21st Bhádon.	1,500	1 day ...	Ballabgarh and Faridabad	A small fair started to catch the people on their way back from Badkhal. Not a large one.

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Name and titles.

The only peculiarity in respect to names is that the Muhammadan Meos are very frequently given Hindu uames. Most names have a pet form which (unlike the English custom) is made to end in "u" for instance Shib Singh will be called Shibbu.

Titles as a mode of address or reference are freely accorded. The Mughals are all Mirzas, the more prominent being termed Sháhzáda : the members of old Muhammadan families of position are generally addressed as Nawab. A well-to-do *zamindar* of almost any tribe will be referred to as Chaudhri, whilst a leading *aráin* is always Malik and a brahman is Pandit. In the city an ordinary merchant or respectable baniá will be addressed as Lálá, the term Seth being reserved for those whose wealth is notorious. Special families too seem to have acquired a prescriptive right to the title of Rai. Such unofficial titles certainly have their use, as but for them it would often be difficult to remember what class of man one is addressing or discussing.

CHAPTER II.—ECONOMIC.

Section A.—Agriculture.

According to the figures of 1909-10 the area of the district is divided up as follows :—

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Area of cultivation.

	Acres.	Per cent.
Cultivated	5,44,055	67%
Culturable waste	1,43,044	18%
Unculturable waste	1,24,474	15%
Total ...	8,11,573	100

The soils now recorded are as follows :—

Soil Classification.

Irrigable.

1. *Chahi* (105,976 acres) land irrigable from wells.
2. *Nahri* (98,519 acres) land irrigable by canals.
3. *Abi* (313 acres) land irrigable from other sources.

No land has been entered as *chahi* or *abi* which has not received water less than twice in the four years previous to measurements : land which has received water from the canals at all during the two years previous to measurement has been shown as *nahri*.

Unirrigated.

1. *Sailab* (33, 176 acres) land naturally moist or submergible by the Jamna or other floods has been entered as *sailab* (*Dhari*) : land submergible from an artificial embankment has be entered as *sailáb* (*Band*).

2. *Barani* (274,229 acres) is subdivided into *dakar*, a stiff clay soil which ploughs up into solid clods, generally found in depressions, and *rausli*, the ordinary light loam of the plain, a mixture of clay and sand varying much in their relative proportions.

3. *Bhur* (31,842 acres). This is a light soil with just enough clay in the mixture to allow cultivation.

Soil distinction.

Apart from the artificial distinctions of irrigation and manure the main distinctions in the soil depend on their natural composition and the nature of the substrata. All about the Ridge the soil is sedimentary, being gritty and shallow over the bed rock, but in the rest of the district it is essentially alluvial. The standard soil is the light loam termed *rausli* ; when enriched with extra clay it becomes *dakar* and when adulterated

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with sand it becomes *bhur*. *Dakar* will be found in low-lying parts and more especially when canal silt has given extra strength to the soil: *bhur* represents the result of drainage washing away the lighter particles of soil or rock so that it is not unnaturally found chiefly near the river and in tracts immediately underlying the hills. The heavy *dákar* soil is precarious requiring good rain to ripen the richer crops with which it is sown: *bhur*, on the other hand, bears only light crops of *bajra* or barley, which will ripen to some extent, at all events even when the rainfall is short.

Shor.

The existence of the evil of *shor* or *reh* and its extensive impoverishment of the soil are too well known now to require to be dwelt on at length. It is really impossible to tell in places how far the damage has spread. Here and there ruin unmistakable, bare and perhaps complete, is apparent. Whole tracts of land, formerly most productive, are lying barren; white with the saline efflorescence when dry, or when wet, foul with a stagnant and sickening vapour that, once perceived, is characteristically distinguishable, and is at times so strong in its odour as to give the sense of being eaten like food. At this point there is no doubt of the damage. But there is a second stage, reached before the final ruin, wherein the corners of fields look unhealthy; perhaps they have a few stunted stalks on them, perhaps they are quite bare. The middle of the field, which has a crop, has also here and there small patches of white or barren soil, telling too clearly of the diminished yield. But the effect of several of these patches, irregular in shape, and scattered in diverse quarters, is to make any estimate of the produce of the field very uncertain. There is, however, even before the second stage an inceptive one, where the devastation has only just begun. Here no *shor* is apparent on the surface of the soil, but the unhealthy look of the crop, or it may be (as in wheat), a kind of withered precociousness in the ears, shows that things are not as they should be. The fields, to a casual glance, bear their usual variegated burden of yellow and white and green; but the *zamindar* knows to his cost that the curse has come upon him.

The seasons and system of Agriculture.

The *rabi* crop is called locally *sadhi*, the *kharif sáwaní*. Land bearing two crops is called *dofasli*, but this means two full crops, such as wheat after cotton, while for land which bears a lighter crop after a full one, such as *channa* after *jawar*, there is another name, *fansil*. Land giving one crop a year is called *badhwar*.*

Three crops in a year are very rare indeed in Delhi; they can be managed only by putting in a fast-growing crop like *china*, and the land requires rest after it. Two crops even are impossible without manuring. The comparative importance of the harvests varies in different parts, as a general rule, the Khadar and Dabar mainly depend on the rabi crop, while the Bangar and Kotri rain-lands naturally yield their revenue in the autumn harvest.

*The word was originally *Bhadwar*—meaning the land depending on the Bhadon rains for its cultivation.

The following figures give the percentages of areas under crop in the *kharif* and *rabi* respectively:— CHAP.II.A. Agriculture

	Sonepat.	Delhi.	Ballabgarh.	Total.
Kharif.	52	56	51	53
Rabi	48	44	49	47

The bulk of the rain falls during the summer months and at that time too the canal irrigation is unstinted, so it is only natural that the cultivation should be more extensive in the *kharif* harvest than in the *rabi*. In the Ballabgarh tahsil however so much of the Khadar is flooded during the *kharif* harvest that it is unculturable, and the submersion in that circle and in the Dabar is the factor which encourages the cultivation of wheat and barley in the *rabi*. The figures for the Delhi tahsil do not represent quite the true proportions, since a goodly area in the Dabar *chak* has been cultivated in the *kharif* instead of in the *rabi* because of the diminution in floods. Of the crops sown eleven per cent. will fail to mature in a normal *kharif* harvest and twenty-four per cent. in a normal *rabi* harvest.

Agricultural implements and appliances.

The implements used by the *zamindar* are as follows:— The plough (*hal*), of which the wooden share is *panyara*; the yoke for his oxen (*jua*); *santa* is the whip he urges them with when lazy or refractory; otherwise he does a great deal with the animal's own tail, which he twists and twirls in a manner which by its results would seem most significant. The reins he checks them with are *ras*. He has beside, his axe (*kuhari*), and the spade-hoe (*kassi*), the common country hoe (*khurpa*), and the small hand scythe with jagged edges like a saw (*dratri*) with which he cuts most of his crops. The *gandasah* is a chopper for cutting up *jowar* stalks and sugarcane, and a smaller tool of the same kind is a *gandasi*. The *khodala*, *khodua*, or *rampra* is a kind of spud with a thick handle used for making holes, where the line of action is the same as that of the hand, thrust downward. A smaller one is a *khodali*; *kasola* is a tool used for hoeing, smaller than a *kassi*, but working on the same principle.

Sowing.

Sowing for the *rabi* begins in Asauj, the latter part of September, and continues till Mangsir has half gone, the beginning of December; the order of sowing is gram, barley, wheat. *Channa* is always sown with a rough drill (*orhna*) fastened on to the plough. This is merely a thick piece of bamboo, the upper end of which has been split into many slips, and opened out so as to form a kind of trumpet shape. It is strengthened with an iron ring put inside (*andi*) and bound with leather outside; the top part of the *orhna* is called *dorhi*. It is big enough at the mouth to let a man's full hand in. The sower walks along with his *chadar* full of seed, and takes out a handful with his right hand, and gives it to his left hand to drop down the *orhna*, the left hand remaining on the *dorhi*, and guiding the plough. Bar-

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ley is sown with a drill or broadcast (Ballabgarh *pabher*—Delhi *pabher* and *bakher*—in Sunipat *bakher* and *hindao*). Wheat is sown with a drill, and also broadcast, and in the northern part of the district in the furrow (*khud*) without the drill. Sowings for the *kharif* (except for sugarcane, of which the special treatment is described further on), begin in Chait with cotton and *jowar* for fodder. Then come *bajra*, the *jowar* intended to give a full crop, *makai*, *urd*, *moth*, *mung*, *jowar*, &c., &c. *Makai* and *moth* can be sown up to 15th Sawan. Both modes of sowing are used; broadcast is however, preferred when the ground is well moistened as after good rain. When the land is dry the drill is more used.

Ploughing.

The ordinary number of ploughings is for the *kharif* crops five, and for the *rabi* nine. The first ploughing is called *par*, the second *dosar*, the third *tesar*, the fourth *chausar*, and the fifth *panchbahini*; after this there is no special name till the ninth, when it is *naubahini*; and this is enough. But sometimes for sugarcane more is done. The depth of ploughing is only six fingers breadth, and is often only three; this is of course merely scratching the ground. Seed is put in about three fingers breadth deep. Good ploughing is a *pakkabigha* per day; work goes on from early dawn to evening, with two hours' rest in the middle of the day. But thi of course is work in the Indian style, and allows for some hälf-dozen pulls at the *hukka*; four times before mid-day and twice afterwards. Some rest is necessary of course for the bullocks, and to make sure that their necks will not be galled by the yoke (*jua*). Well-work generally is very trying for the animals; the husbandman says it is as bad for them as gambling is for a man. The *sohaga* is used after ploughing, for levelling the ground, and breaking the clods (*dalle*, *dhim*). It is also called *mahz*. A little *sohaga*, according to the usual way of making diminutives, is *sohagi*, or *mahji*.

Propitious times (*mahurat*) are sought for ploughing, and certain days must be somewhat humoured. Thus on Monday and Saturday a prudent man will not plough with his face to the east. On Monday and Saturday the demon of the four quarters (*Disa-Sul*) remains in the east; his location is not so fixed during the rest of the week as to give rise to any other proverb; but a *zamindar* will not of his own accord go northward on Tuesday and Wednesday or westward on Friday and Sunday, and the south must be avoided on Thursday (*Brihaspat.*) These limitations are strictly observed. Wednesday is good for sowing and Tuesday for cutting the crop.

Harvesting.

Crops are harvested by the *zamindars* themselves, but they generally require the aid of hired labourers, so that in almost every village some of this class will be found. They are for the most part *Chamars*, but sometimes *Chuhras*. *Malis* generally cultivate on their own account, but at times work as labourers. Brahmins often go shares (*sajhi or sanjhi*) with the proprietor, furnishing one yoke of oxen to one of the owners. A Jat does this too when

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he is poor. The rates of pay for the *kharif* season are 4 annas per diem and a *roti* of ¼ seer weight, but the bread given is sometimes enough for a full meal. The owner calls on the men he wants for next day the evening before, and looks them up too in the early morning. Then they all go a-field together and begin work. When six *gharis* of the day have passed the *basi* meal is brought by the owner's boy or girl for all the men. After this work goes on again till noon, when the main morning meal comes on. The labourers provide this for themselves unless it be a dear season for labour, when the proprietor will have to find it. The work is again resumed, after a pull at the *hukka*, and goes on in a quiet way till sundown or after that, and then they all go home together. No one forces the labourers to stay, for no one is extremely anxious to go; they even take an interest in getting the crop cut and gathered in quickly. The general understanding is that the cutting goes on till sundown, and the collection of the sheaves after that. Pay is given that evening or the day before. If payment is not made, the man is known and marked, and they laugh at him the next season.

In *rabi* the labourer mostly takes grain; he won't take cash. The rate is 4 seers, or more, reckoned by sheaves (*pulis*) which give something less than a seer each. In order to see that he is not cheated by very big sheaves being taken, the owner puts his own people to arrange the stock (*kundra*); the big sheaves are put down at the bottom, and so are safe. A man cuts about ⅙ of an acre in the day. The hired labourer eats three times a day, and there is not much inferiority in his diet to that of the land proprietor. He has not the rank of the *zamindar*, but otherwise is happy.

Hoeing and weeding.

Hoeing and weeding (*nalai*) are considered good for all crops, but some need this more than others. Sugarcane is never satisfied in this way; cotton likes also much to be clean; while wheat will do with one good hoeing: also *jowar*, and *bajra*. Pepper wants a great deal, and tobacco the same.

Carting grain to threshing floor.

The grain when cut is carted to the threshing-floor (*pair*; Punjabi, *kalwara*); a collection of these is called a *khata*. The owner will generally see to his crop himself by sleeping there at night till it is threshed out, which he loses no time in doing. "With your threshing-floor and your enemy, deal quickly."

Modes of storing grain.

Grain is either stored in *kothas* or rooms of the house, or in *kothis* in one of them, or in a large canvas bag *theka* which stands upright by the weight of the grain in it, and holds 50 or even 100 maunds. All kinds of grain are housed in this way. The animals attacking grain when thus stored (besides rats and mice of course if there are any, are (1) *sursali*, (2) *khapra*, (3) *dhora*. Of these the *dhora* is a winged insect with a little round body; if the *khapra* is put into a granary where he is, he dies, not being able to abide the savour of the other! The *khapra* is a kind of weevil that confines his depredations to the top of the store, not going

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more than a span deep. The *sursali* is a kind of red ant; he is as bad as the *dhora*.

Manure.

Manure is generally the dung of cows, buffaloes, or bullocks fastened up in the house. No *zamindar* hesitates to handle it; it would be most unreasonable, for dung and mud serve him instead of wall-papering. The ashes of cow-dung, pats, *upla*, and of any wood burnt—but not those of the *khoi* (cane-straw refuse),—all come into use. The great enemy that prevents the supply of manure being much larger than it is, is the custom of burning such pats for fuel. All but the best families use their women in making them up. When made, they are placed inside a square enclosure called a *bitaura*. The pats are dried, put inside, and it is then built up solid, and then closed for future use. When the pats are needed, a hole is made in the side and they are taken out as wanted.

Fallows and rotation of crops.

There is no custom of fallows in the district. The soil indeed has very little rest now-a-days, whether from the greed of the *zamindar* or from the acceleration which appears going on generally in the slow-paced oriental life. Land left unsown after one crop is reaped, during the succeeding season is called *tapar*; next year if it is still left so, it becomes *banjar*. *Bahan* is really the the name for land after it is ploughed (*bahna*) ; when sown, it takes the name of its crop. Rotation of crops is partially practised, for the *zamindar* has his predilections and prejudices which may be taken as embodying the results of traditional experience about the succession of crops. Thus after wheat will come *jowar* or cotton, or *moth* with advantage ; after sugarcane, cotton, or *jowar* or *urd* ; after cotton *makkai* is very good. The best rotation is given as follows : sugarcane, then cotton, then tobacco, then pepper, or *makkai*.

The following table gives a few useful statistics concerning the cultivation of crops as maintaining throughout the district. Fuller details will be found in the Assessment Reports :—

1	2	3	4	5	6	7
Harvest.	Crops.	When sown.	Sdree equired per acre in sers.	When harvested.	Irrigated yields in maunds per acre.	Unirrigated yields in maunds per acre.
KHARIF ...	*Jowár* ...	June ...	10	Octo ber ...	7 to 10	3½ to 7 maunds.
	Bájra ...	" ...	4	" ...	8	4 to 6
	Maize ...	June, July ...	8	" ...	10 to 13	5 to 8
	Mash, *Mung* and *Moth* ...	" ...	10	" ...	5	4
	Cotton ...	April, May ...	11	October to December ...	7	4
	Sugar-cane ...	March, April ...	24 (pulis)	December, January ...	15 to 40	...
	Chillies ...	June, July ...	½	October to January ...	48	...

1	2	3	4	5	6	7
Harvest.	Crops.	When sown.	Seed required per acre in sers.	When harvested.	Irrigated yields in maunds per acre.	Unirrigated yields in maunds per acre.
RABI ...	Wheat ...	October ...	25	April, May ...	10 to 14	5 to 8
	Barley ...	" ...	20	March ...	12 to 16	6 to 9
	Gram ...	September ...	20	March, April ...	10	8
	Sarson ...	October ...	1½	April, May ...	5	4
	Tobacco ...	December, January ...	3	April, May ...	20	...

Population engaged in agriculture.

With the exception of a few artisans, officials and trades people the whole of the rural population depend on agriculture for their livelihood. The tribes have been already described. The harvest labourers employed are usually local men, women, and children but often nomad people such as Kanjars and Saperas, who live in squalid encampments pick up a living in this way. Landlords often employ a ploughman who as wages receives a ⅛th share of the crop and village menials who help at harvest time receive small payments in kind.

Principal crops of importance.

The following table shows the proportions of matured areas of the principal crops in each tahsil in an average year, the figures being obtained from the statistics in the assessment reports :—

1	2	3	4	5	6
Harvest.	Crops.	PERCENTAGE IN			
		Sonepat.	Delhi.	Ballabgarh.	Total.
KHARIF ...	*Jowár* ...	16	14	11	13½
	Bájra ...	7	22	19	16
	Maize ...	2½	1	1	1½
	Pulses ...	5	6	6	5
	Cotton ...	11	5	9	8
	Cane ...	5	3	...	3
	Total ...	46½	51	46	47
RABI ...	Wheat ...	29	16	9	20
	Barley ...	1	6	19	8
	Pulses mainly gram ...	11	15	14½	13
	Oilseeds ...	1½	2	2½	2
	Total ...	42½	39	45	43
	Grand Total ...	89	90	91	90

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The remaining 10 per cent. is made up of 5 per cent. fodder, 1 per cent. chillies and tobacco in about equal shares, and 4 per cent. fruit, vegetables and miscellaneous unclassed products.

Kharif Crops. Bajra.

Bájra is grown almost exclusively on the lightest soils and consequently principally in the southern half of the district: the fields receive but scant attention at any stage, as light soils have the merit of being clean. There is one common variety known as *desi*; it is more popular than the *purbi* (or eastern) variety which, though giving a larger produce both as regards cob and grain, is not so hardy, requiring more rain and in any case ripening later: the *desí bájra*, too, is more popular with the consumers on account of its taste. Sowings take place in June and July, a late crop of the *purbi* variety being sometimes sown during those months and up to the end of August. An equable rainfall is desirable after which the crop will ripen of itself, but the late crops require a fall of rain at the end of September. Ordinarily harvesting takes place during October, and even the *pachheta* crops are usually out of the ground by the middle of November.

Jowár.

A wise Nature seems to have allotted to *jowár* and *bájra* the domestic convenience which mythology attributes to the family of Spratt: whereas *bájra* thrives on the lean soils, *jowár* prefers the richer ones and receives considerable attention. There are three main varieties known as *chamarya*, *badha* and *desi*: the last named ripens the quickest and is therefore more popular, but *badha* has the commendable quality of big heavy stalks, a quality which is of special import when one realises how much of the *jowár* is grown for fodder. Sowings are confined to the six weeks from June 1st except in years of late rain when sowings may be continued up to a month later. The ordinary monsoon rain will suffice for a good crop so long as there are some appreciable showers in September.

Maize.

Maize is grown to a small extent in the northern half of the district: there are two varieties known as *desi* and *airwa*: the former is red with a small cob and a small grain whilst the latter is white and bigger in every respect, giving a flour which is sweet to the taste: the *desi*, however, is the more commonly grown, as it matures quicker and does not require so much moisture as the *airwa* variety. Maize is sown during June and July and will ripen, as a rule, in eleven or twelve weeks: it requires a strong soil with plenty of burden in it. The chief disease from which it suffers is "*gindar*" said to be brought on by the east winds, and the chief remedy seems to be a change in the wind.

Cotton.

Cotton is a thirsty crop which requires a lot of attention; it is found chiefly on moist land with a naturally strong burden. Of cotton there is only one variety locally known as *sufed*: cultivation of cotton on protected land is certainly paying enough, but undoubtedly heavy labour is necessary to obtain a full yield. *Chahi* land requires at least four waterings and heavy manuring and in consequ-

ence the ploughings have to be frequent. The seed is mixed with animal manure and scattered broadcast: the sowings are generally earlier than the *jowár* sowings: when the seed sprouts, weeds come up too, their riddance involving manual labour. Cotton pickings last from the beginning of October to the end of December, each field being picked clean about once a week: a small portion of the cotton is kept for household use, but the bulk of it is taken to the ginning factories, by the zamindars themselves if close to the factory, or by the local tradesman if the factory is far off. The leaves of the plants serve as fodder, as do the surplus cotton seeds which have considerable value as a milk producing diet: the stalks are useful both for making household brooms and for fuel.

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Sugarcane.

A field which has lain fallow during the *rabí* is subjected to about four ploughings during December, January and February and is very heavily manured: a watering is given to be followed by another ploughing and the field is then ready to receive the seed, which has been in the meantime prepared from the previous year's crop. At harvest time the stalks selected for seed are stripped of the redundant leaves and buried in a pit, or else covered with earth in a raised bed in a corner of the plot to be cultivated. In March or April when these stalks are taken out and cut up into lengths of about 2 feet, the joints being carefully left intact, the seed is ready for sowing. The field is then ploughed and the short pieces of cane which form the seed are laid flat in the furrows, and finally the *majh* (a heavy *kíkar* plank) is dragged across the field to effectually cover it up. To ensure that the seed is properly sown the cultivator will the next day go over the field with his *khurpa* (hand hoe), probing, as it were, along the furrow lines; when satisfied he will again apply the *majh.* In about a fortnight, the joints in the cane have sprouted and the field has to be weeded with the *khurpa* (then and every subsequent fortnight for about two months) to ensure the growth of plants being unimpeded.

At the fifth weeding a careful manuring is given to each plant in detail and the field is thoroughly watered. By this time the plants are some 3 feet high, so the *khurpa* is discarded in favour of the *kasuli*, a long handled implement, as the men have to work standing up. In *cháhi* fields, if the rains are deficient or untimely the crop will be flooded twice monthly and in *nahri* fields whenever water is available.

After August all weeding is stopped, so that beyond watering little attention is necessary; as the crop grows taller there is danger of its toppling over and exposing its roots, so 15 to 20 plants will be tied together at the top to give one another support. Towards the end of November the bright green colour changes to a ruddy hue, by which maturity is indicated. In December the stalks are cut off flush with the ground and are carted away to the press (*kolhu.*)

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Pressing, etc , is a simple process : the stalks are pushed into the press and are crushed by the revolving cylinders, the juice dribbling into a tin or *chátti* from which it is poured into the earthen tub (*nándh* or *kundh*) ; it is eventually strained through a sieve (*tokri*) into the flat iron pan (*karah*), in which, occasionally stirred with a wooden spoon (*gholna* or *masaudh*), it is kept simmering. When the syrup has thickened it is exposed in earthen pans (*chakh*) to cool, and finally the *gur* is moulded with the hand into round pats (*behli*) ready for the market. The refuse cane is utilised as fuel to keep the *karah* boiling. *Behlis* are usually 5 seers in weight and will fetch anything up to eight annas a piece, so four rupees per maund is a full price.

Outturns vary of course enormously from perhaps five to sixty maunds per acre according to the irrigation, season, cultivation, class of cane, etc., but *lalri* sugarcane (the usual species) will run to 35 maunds on *cháhí* and 30 on *nahrí* respectively on the average.

It is obvious that the cost of cultivation is very great : indeed a single farmer with no relations to supply cheap labour and without a good supply of manure could not possibly cultivate sugarcane with profit. The hire of the *kolhu* itself is a great expense, amounting to about Rs. 30 for the season of three months, but the use of it is shared by a number of men whose cultivation amounts to about 15 acres of land ; the machine is never bought outright, because the local *lohárs* are not competent to keep it in efficient repair.

Chillies.

Chillies are grown only on *cháhí* land and mainly in the northern Khádar and the Khandrát circles : like that of other crops of value the cultivation of chillies entails exceptional labour : as much as five ploughings, anything up to twenty waterings, four or five weedings, and manure to the extent of 300 maunds per acre are required. Sowings take place in June and July, the seedlings being transplanted after a fortnight and pickings, as soon as the pods turn red, begin at the end of October and are continued fortnightly for three or four months.

Kharíf Pulses.

The *kharíf* pulses *mung*, *moth* and *másh* are usually sown mixed up with *bájra*, *jowár* and cotton in contradistinction to *til* (oilseed) and hemp which are sown along the field borders or in regular lines. *Mung* and *másh* perhaps average four maunds per acre as a general rule whilst the *moth* outturns average one maund more. *Gowár* is a pulse of the bean tribe which is sown in fields by itself and really more often for its straw (*jhora*) as fodder than for the sake of grain. The plant reaches a height of four feet, bearing a three-inch pod, but the length of the pod varies to a certain extent inversely with the length of the stalk.

Mehdi.

Mehdi (lawsenia inermis) is quite a speciality in the neighbourhood of Farídábád and, though there are only some 400 acres of it, the profits are so great and the cultivation of such unusual nature that the plant deserves special mention.

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For its original planting, the soil requires considerable preparation. At least six ploughings are given before the clods are thoroughly crushed and the land levelled by the *soháqa* or clod crusher: then small *kiárís* are made to receive the seed: the seed itself is soaked for a fortnight to three weeks in *gharas* from which the water is drained off gradually by a tiny hole, so that fresh water may be added daily. In June or July when the seed has germinated in the *gharas*, it is taken out to the *kiárís* which have been previously filled to the brim with well water, and, having been mixed with dry and well ground animal manure (*arnas*) it is flung broadcast into the *kiárí*. The object of the *arnas* is to ensure the seedling settling down in its place and not floating about in the *kiárí*. The irrigation channels *bhara* are made somewhat deeper than the *kiárís* to prevent the influx of sand or sediment which is likely to be injurious. Daily waterings are given for a few days until the plants sprout after which two waterings a week suffice. When the seedlings are about 8 inches high, they are transplanted by hand into an area some four times the size of the original *kiári*. The original cost of the seed is Rs. 2-8 per maund: nearly a maund and a half is required for the cultivation of an acre. For the first three years the crop requires considerable attention in the way of watering and weeding, the latter being consequent on the former. No manure is necessary for three years, but after that the expenses of manuring are considerable; as roughly 400 maunds are required for every acre. The crop is then hardy enough to look after itself: if a man is energetic and thrifty he continues to irrigate regularly, if the reverse he is satisfied with the *báráni* outturn: in any case unless a field is absolutely neglected, the same plants will continue to yield a good produce for as long as a century. The hardiness of the plant can be also realised from the fact, that, though at the outset sweet water is essential, after the transplanting water from a brackish well can be given with impunity. The crop too is by way of being *dofasli*: the plants are cut off close to the ground at the end of October and in June: they are tied up in bundles and the leaves are beaten from the stalks with sticks. When the leaves, which are a bright green, are dry they are ground into fine dust ready for sale, ten rupees a maund being a fair price: but the traders adulterate it with sand and mustard oil, the mixture being sometimes as much as four parts sand, and the ad ulterated compound fetches from five to seven rupees permaund. *Mehdi* always finds a market as the red dye is in great request, especially at marriage festivals.

The cost of cultivation for the first three years is about Rs. 200 per acre per annum, but after that only some Rs. 50 per acre is spent. Yields on irrigated land of *mehdi* are about 20 maunds in the *kharíf* and 5 maunds it he *rabi*, whilst on *bárâni* the yield is 10 maunds in the *kharíf* and nominal in the *rabi*. It

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is generally reckoned that the cultivator's profit averages on the whole some Rs. 60 per acre.

Land reserved for *mehdi* is now-a-days let to tenants-at-will at *bigheri* rates which may amount to over Rs. 14 per acre, but the usual rent is Rs. 12. Much of it has been given out years ago on permanent leases at Rs. 10-8 per acre, since when there appears to have been a slight rise in rentals.

Hemp.

Hemp, *san* (Hibiscus Cannabinus) is generally sown along with the cotton on the field boundaries in irrigated land, as it seems to require unfailing moisture. Four seers of seed suffice for an acre. Hemp is cut in November, the stalks being soaked in tanks for a fortnight, after which it is cleaned and dried. The fibre is used chiefly for the well ropes and the string of charpoys. *Sani* (crotolaria juncia) is a similar plant which is grown in small areas as a regular crop and not as a border plant.

Rabi Crops. Wheat.

The three varieties of wheat grown are *lál*, *sufed* and *munda* (beardless), the first named being the most common and being found everywhere. The white variety is grown chiefly on account of the refined flour (*maida*) for which there is a demand by the richer folk and at festivals; beardless wheat is grown in a few Khádar villages. The chief reason that red wheat is so popular is that the resultant *rotís* are full of sustenance.

For wheat the same sort of soil is necessary as for *jowár* and cotton, that is to say, if unirrigated it must be sown in fields of *dákari* nature, and so it is grown mainly on *nahri* and *sailáb* lands where silt has enriched the soil. Cultivators begin to plough after the July rains and go over the ground six times and more, applying the *sohága* as soon as the sun has dried the clods: manure is freely given, especially on irrigated land. The seed is sown with a drill towards the end of October, usually after the first *palewa.* Water will be given four times as a rule, and in a year of drought as many as eight times: for *báráni* cultivation rain is required in August, November and January: the land is weeded twice if irrigated and once if *báráni*.

The crop ripens by the end of April when it is reaped and stacked for a fortnight to dry, after which the grain is threshed by oxen in the usual way and a double winnowing takes place, the refuse after the process being termed *bukn* and *tikora*.

The chief diseases of wheat are *ratwa* and *khukai*, the former being generated by damp and the latter by prolonged wind from the west The field rats vie with white ants and deer in damaging the wheat crop.

Barley.

Barley is the main *rabi* crop where light soils prevail and rain is uncertain. The cultivation of barley is very similar to that of wheat but less labour is involved: though treated to less ploughing, less manuring, less irrigation and less weeding, barley

ripens a month earlier than wheat. The grain when threshed however takes somewhat longer to dry probably because the heaps are large and that which is underneath is protected from the wind and sun's rays. **CHAP. II.A. Agriculture.**

Gojai. *Gojai* or *gojra* is a mixture of barley and wheat which is grown on moist land only. The cultivation of this mixture may be likened to the action of a man "hedging" who has made a doubtful bet: if the rains are good both crops mature and even if they are short the barley yield is fairly certain to cover the loss.

Gram, Bejhar and Gochani. Gram is sometimes grown as a single crop, but more often along with barley or wheat, the mixed crop being known as *bejhar* and *gochani* respectively, but since the patwáris at *girdáwri* time can form an estimate as to the proportions of the component grains, (a proceeding which is impossible in the case of *gojai*) the mixtures *bejhar* and *gochani* find no place in the *jínswár* returns. It is unusual to find gram on irrigated land, for it requires little extra moisture so long as there is any winter rain at all: since it flourishes on a light soil and, indeed, is very similar to *bájra* in its requirements. It is an important crop in the weaker tracts. It is an early crop, sowings beginning in September and the harvesting being over by early April: the husbandry is similar to that of barley.

Pulses. The other pulses are mainly *peas* and *arhar*; the former are grown almost entirely in the moist *sailáb* land of the Khádar. *Arhar* is a plant which is largely cultivated in the United Provinces and does not penetrate far into the Punjab: it is sown in lines about three yards apart usually with cotton and pepper. The plants grow to a height varying four to six feet and do not yield their grain till they have been some ten months in the ground. *Masúr* is grown on the *sailáb* and *bhur* soils to a small extent.

Oilseeds. *Sarson* and *taramira* are usually sown mixed with cereals, more especially with wheat: they are sown and harvested at the same time as the wheat. The seeds being so small 1½ seers are ample for the sowing of an acre. The yields vary from 3 to 5 maunds. The oil is abstracted in country presses: the refuse (*phokal*) is made up into oilcakes and given to the cattle. Cattle fed on *tara* oilcakes give more milk than those fed on *sarson* oilcakes, but, on the other hand, the *sarson* oil fetches higher prices than *tara* oil, which is rather bitter.

Vegetables. Vegetables include onions, turnips, carrots, pumpkins, *baíngan*, *kakri*, melons, etc., which are only cultivated close to where there is a demand or special facilities for their production. Of course the principal cultivation of such is all around the Delhi city in the market gardens for which an unlimited supply of manure can be obtained. The cultivation of melons, cucumbers and squashes is really quite a speciality of Jamná river bed, the plants being

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rooted in the strong soil below the layer of sand. Melon-pits are dug some four feet deep and protected by drifting sand by grass screens: the seeds are placed in the hollow beds (*tháonla*) after they have been well prepared with manure. As the plants grow the pits are gradually filled up so that by the time the produce is ripe the land has become fairly level again: if there is any lack of moisture *dhenklís* will be rigged up. Vegetables are cultivated extensively also about Sonepat, Najafgarh, Indarpat, Farídábád, Ballabgarh, Shamspur, Dhoj.

Tobacco.

Tobacco is grown only on *cháhi* land and generally close to market towns. The land is carefully prepared by ploughing and clod crushing some five times and with heavy manuring. The seeds are sown in January in nursery *kiáris*, and when they have sprouted are transplanted with the hoe; the crop is irrigated copiously from fifteen to twenty times, involving great labour in weeding. To strengthen the growth, the flowers (*kanni*) are picked off some half a dozen times and the plant is trimmed once with the shears (*chundi*). The harvest takes place in April when the tobacco is cut off close to the ground and left three days, to dry in the fields, after which it is spread out to dry in the sun and stored. There are two kinds *Desi* and *Kalkatti* (*i.e.*, from Calcutta): the chief difference between the two appears to be that the stalks of Kalkatti tobacco can be utilised as well as the leaves, an inferior grade of tobacco fetching about Re. 1-8 a maund being manufactured, from them.

Fruits and Orchards.

Throughout the district are many fruit gardens in small scattered plots, but the fruits are of an indigenous type which would hardly find favour in a European market, being mainly *ber*, *jáman*, common mangoes, etc. However, these are much appreciated in bazars so that the cultivation is profitable, especially that of the *ber* gardens. Around Delhi, however, is a very different state of affairs. The gardens and orchards cover nearly 2½ square miles (1,717 acres) and produce most of the indigenous and acclimatised fruits which will grow in the Punjab plains. Guava and *loquáts* seem to be the most valuable of the list which includes grapes, peaches, plums, apricots, mangoes, pomegranates, bananas, *kamruk*, etc., and it is surprising that strawberries which are grown so extensively at Meerut are not grown at all in Delhi. Common roses too are grown for the manufacture of perfume.

The value of the gardens is very great, the rental of a fair garden being about Rs. 25 per acre, though the tenant has to pay all the canal charges which will amount to another Rs. 10 per year.

Fruit is sold to contractors who specialise in their fruits, one man buying all the bananas, another all the guavas, and so forth; and the cultivator will on an average realise about Rs. 70 per acre for his produce. Now-a-days the gardens are largely owned by

rich city merchants who like to have pleasant retreats, to which they and their families can resort when heat or disease renders city life uncomfortable. A few gardens of historical interest (mentioned elsewhere) are maintained as ornamental gardens by the Municipal authorities.

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Increase in cultivation.

The cultivated areas returned in 1880 and 1910 are respectively 519,417 and 544,055 acres, so that cultivation appears to have extended 4·7 per cent. during past thirty years. The figures are, however, some what misleading, as the boundary with the United Provinces varies according to the vagaries of the Jamná. The changes are not negligible as may be gathered from the fact that in 1908 as much as 1,744 acres of cultivation only were transferred to the sister province. The principal increase (22,000 acres) is in the Sonepat Tahsíl.

Loans under the Land Improvement and Agriculturists' Loans Acts.

The land improvements for which loans are granted take the shape of wells, since larger works such as *bands* and drains are undertaken by the District Board. Advances are not made with any regularity but seem to be made with profusion after years of drought: the more important advances were Rs. 51,000 in 1902-03, Rs. 35,000 in 1903-04, Rs. 15,900 and Rs. 26,529 in 1907-08. There has been only one advance of importance in the Sonepat Tahsíl, *i.e.*, in 1902-03, when Rs. 11,020 were given on loan: the Delhi, and Ballabgarh Tahsíls have on two occasions received more than Rs. 15,000 and the latter Tahsíl too had in 1901-02 loans to the extent of Rs. 37,510. In the past twenty years Rs. 1,57,000 in round figures have been advanced under this Act, a sum which represents the value of some 500 wells.

Under the Agriculturist's Loans Act *zamíndars* can obtain advances for the purchase of seed or plough cattle. Previous to 1896 the advances were of quite a nominal nature, but since then droughts and fodder famines have necessitated loans being given with unstinted freedom. The largest items were:—

	Rs.		Rs.
1896-97	... 30,896	1907-08	... 1,29,929
1899-1900	... 65,122	1908-09	... 43,402
1905-06	... 35,150		

In 1909-10 and 1910-11, no loans were required.

The advances in Sonepat have been trifling but Delhi and Ballabgarh have again been treated liberally: the latter Tahsíl took up nearly three quarters of a lakh in 1907-08. Considering that in that year the land revenue in the affected parts of both these Tahsíls was also suspended, the advances under this head were almost in the nature of famine relief.

Agricultural Banks.

So far no agricultural banks nor similar urban societies have been founded, although the gospel has been preached by the re-

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venue officers throughout the district; at the same time possibilities are not entirely wanting. The villagers of Mohana (Tahsil Sonepat) in their hearts want an agricultural bank but, though they have displayed unusual cohesion in consolidating their buildings and obtaining a repartition on a sound basis, the opposition of the Bohras of the village has been too great. In the village of Nahra in the same Tahsil there is a slight movement in the same direction but so far the people are not of one mind; the village is one which refused originally to take canal irrigation and in consequence has not advanced in prosperity like its neighbours.

Indebtedness of the cultivators.

During the Settlement operations the staff recorded for each village the amount of floating debt which was admitted to exist, the total amounting to 35 lakhs of rupees; the returns however were not very reliable for various reasons which are detailed in the Settlement report. The debts can be attributed to three main causes: (1) expenses incurred at weddings and funerals, (2) bad harvests involving shortage of food for man and beast and consequent reduction in the number of cattle, (3) litigation. To what extent the three causes capitulated are severally responsible must be largely a matter of speculation, but it is clear that only the second is unavoidable, though it can be minimised by improvements and executive action in the direction of granting facilities for the import of grain and fodder. There is an apparent tendency to reduce unnecessary expenses at domestic festivals, but litigation must, until education has become far more general, be a potent factor in keeping the debt figures at a high level: at the same time litigation is seldom the first step but is rather the outer layer of the snow ball and the histories of the debts bear a sorry similarity. A small debt for necessities is temporarily met by a deed which proves unconscionable: the parties drift into courts and the sacred law of contract is upheld: interested advice is given till the debtor has tried his luck in the highest court: the downfall is complete.

Rates of interest.

The standard rate of interest between money-lenders and *zamíndárs* is Rs. 2 per cent. per mensem or 24 per cent. per year, though, if a *zamindár* is in good circumstances, he will obtain money on better terms: amongst themselves *zamíndárs* lend money at much lower rates, for example 12 per cent., and since the Játs especially lend money freely if they have it, probably 18 per cent. is a fair average. A somewhat peculiar custom locally known as *rahti* exists by which petty sums of cash are obtainable: a man will borrow Rs. 10 paying back the principal and interest in twelve monthly instalments of one rupee each.

Land transactions (Table 21, Part B).

The salient figures of the land transactions for the past fifty years are epitomised in the form below: in which connection it

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will be borne in mind that as the Land Alienation Act was passed in 1901, the figures for the last decade are of special interest :—

1	2	3	4	5	6	7	8	9	10
	Sales.			Mortgages.			Redemptions.		
Yearly average during the period of the	No. of transactions.	Area in acres.	Price per acre.	No. of transactions.	Area in acres.	Price per acre.	No. of transactions.	Area in acres.	Price per acre.
			Rs.			Rs.			Rs.
Seventies	46	976	34	160	1,994	29	25	408	19
Eighties	264	1,636	59	1,148	4,594	46	343	1,459	35
Nineties	376	3,252	73	2,636	7,203	67	1,173	3,873	49
First decade of the new century.	467	3,403	100	3,060	6,602	74	1,935	5,121	56

The statistics show certain unmistakable facts. Since 1880 the price of land has trebled, and as the value of land increases much smaller areas are a lienated at each transaction. Transactions too are much more frequent so that there is a brisker trade in land The mortgaging value is not far behind the sale price, and when redemptions take place the poorer land is ordinarily redeemed and the more valuable lands remain mortgaged.

The most striking feature however is the effect of the land Alienation Act, whose opponents must now be numbered with the false prophets. The *zamindars* now sell and mortgage just as much land as they did before the enactment, they obtain better the prices showing that they have considerable resources of their own, and a much larger proportion of the mortgages are redeemed. Like all farmers the *zamíndars* objected greatly at first to the Act on account of its novelty, but now that the benefits are being realised tribes excluded from its privileges clamour to be gazetted as agriculturists, adopting most amusing arguments and urging most nebulous claims to attain their object. Conditions under which transfers are made have varied considerably. In former days the money-lender used to be the alienee almost as a matter of course, but now in the richer tracts they are plenty of well-to-do Jats and other agriculturists who will advance money freely. The non-agriculturists have still a considerable field for action in the poorer tracts which are held by Shaikhs, and in some of the good villages which have previously passed into the hands of non-agriculturists, who in their turn have become impoverished. The Act has hit very hard

CHAP. II. A. Agriculture. the Bohras, who are always anxious to become landowners: but the petty village baniya is not seriously affected as the management of an estate is not attractive to him and is only undertaken when he sees that there is no other hope of realising his dues. The Jats, Gujars, Arains and Reahs are thrifty agriculturists who are now holding their own well: in this part of the country the Muhammadans, *i. e.*, Salijids, Meos and Shaikhs have been and are in troublous circumstances.

Statistics elucidated from the assessment reports show that between 1880 and 1909 of the cultivated land the following percentages had changed hands :—

Detail.	Sales.	Mortgages.	Total.
To *Zamindar* Alienees	4	8	12
To Others	3	6	9
Total ...	7	14	21

The figures refer to proprietary right only and show that about 21 % of the cultivation has changed hands but that only 9 % has passed into the possession of non-agriculturists.

Agricultural Stock, Table 22, Part B.

Statistics show that since 1881 stock has increased 12·3 per cent. the increase being mainly in flocks which are usually owned by butchers or menials. During the years of drought cattle were reduced in numbers to quite an alarming extent, but the recuperation since the season of plenty and rich fodder came in has been steady and consistent. In connection with the re-assessment careful calculations (see assessment reports) were made as to the profits from dairying and from stock generally : the estimates showed that the capital invested in cattle amounts to about 121 lakhs which yields a profit of at least 11 per cent.

Cattle form an important feature of agricultural economy. An ordinary Jat will certainly have his yoke of oxen and a cow or buffalo, or both. A cow gives eight or ten calves, one a year; a buffalo will give fifteen or more. The cattle are milked (*duhna*) at sunrise, the vessel (*duhni*) either of earth or of *pital* is put up in a niche in the wall and some two hours later the milk is warmed up to boiling. The skim comes up, and then the vessel is taken off the fire and put away for use, but the cream (*malai*) is taken away. *Ghi* is made the next day in the churn (*bilomini*) the milk being curdled with a little *lassi*. Buffaloes' milk is considered richer and stronger than cows' or goats.' Among buffaloes one of a *bhura* (dirty grey brown) colour is adjudged the best (though it is rare) as its milk is considered especially nourishing. Cattle are taken out to graze when the sun gets up in winter; in the hot weather buffaloes and bullocks are taken out in the last watch of the night (*pasar.*) Sheep and goats cannot feed when the dew is on the ground;

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they get worms in the mouth and feet. Water is given about 10 o'clock and again after this towards sunset; they come home before the sun goes down. In the cold weather water is generally given only once, as of course thirst is less. Cattle, however, are kept by the agriculturists only to an extent which is sufficient for their wants, but special classes of men, notably Gujars and Ahirs, regard their cattle not merely as supplementary to agriculture but indeed as their main source of livelihood. The city creates a great demand for both milch produce and flesh, which is met enitrely from local sources. Those who are close to the city confine their attention mainly to the supply of milk, *ghi*, &c., whilst the meat supply is in the hands of the more remote. The demand for pasture land near the city is very great and since the rascally Gujars keep far more cattle than their holdings will support, the *zamindars* of the neighbouring villages are in constant conflict with them. Flocks are usually owned by local butchers who hand the animals over to Gujars and menials on a share profit system by which the graziers keep a proportion of the young. The partners make a good profit but the unfortunate *zamindar* is left in the lurch as he seldom receives any dues in return for the grazing which his land affords.

Pasture land.

The special tracts suitable for pasture are the waste lands in the Khadar (especially Ballabgarh tahsil) which however is the cold weather grazing ground, and in the Kohi tract. The latter is more a pasturage for flocks then for cattle but cattle resort to it in the rains.

Prices of cattle.

The following may be taken as fair prices for average animals, but of course near the city prices of milch cattle are considerably higher than in the rural parts:—

Buffalo, male	27	Cow	45	Pony, small	30
Buffalo, female	65	Goat	5	Pony, large	70
Ox ...	60	Sheep	3	Mule	80
				Camel	70
				Donkey	8

Breeding operations.

There is nothing worthy of particular notice about the horses, mules, &c. The style of mare possessed by the better class of *zamindar* has improved since the establishment of stallion depôts, and the Sonepat people have some good mares. In all perhaps 60 mares might be found fit for branding; to horse and mule-breeding, however, not much attention is paid though there are signs of awakening interest in the matter. Some of the mares are taken to the Government stallion at Patti Kalyana in Karnal. The District Board keep two horse stallions and one donkey stallion at Sonepat and Ballabgarh, respectively, which cover in all some 300 mares annually.

Since the Breeding Commission decided that Delhi is not worthy of inclusion in the districts in which horse-breeding is to be superintended by the Remount Department, the breeding in Delhi has been managed entirely by the local authorities with stallions supplied by the Civil Veterinary Department.

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There are 9 Hissar bulls in the district, 1 in Sonepat, 3 in Delhi and 5 in Ballabgarh. The breeding of oxen and cows is however chiefly managed by the "Brahmani" bulls (locally termed *ankal* and *bijar*). Rams are rather small, some of the best are used for fighting.

Sheep and goats are reared chiefly in the Kohi villages: they are also brought from the Gurgaon and Rohtak Districts, Alwar, and the trans-Jamna tracts into the Delhi-Kohi for sale locally.

Cattle disease.

Rinderpest generally appears among cattle every spring for about a month and then disappears. The death-rate is said to be as high as 90 per cent. of the seizures. Foot and mouth disease appears in the winter and spring. There are Veterinary Hospitals at Sonepat, Delhi and Ballabgarh at which a stock of medicines and suitable appliances are kept.

In connection with the subject of cattle disease may be noticed the custom of *rora nikalna*. *Rora* is a disease of the cattle, as bad as cholera is for men: to repel it a rope is tied across from one house to another at the entering in at the village, on which a piece of *siris* wood and a *ghara*-lid (*chapni*) are tied in the middle and underneath it a plough is placed. A weed called *bhainsa-gugal*, is burnt like incense in a fire and its smoke put on all the animals of the village; this is said to either stop disease or prevent it; on the rope near the *chapni* a red piece of thread and *supari* (*chhalia*) is fixed; on the day of giving smoke to the animals the people eat stale bread so as not to light their own fires. Neither is grinding heard throughout the village that day which is called *akhta*. Both Hindu and Muhammadan *zamindars* observe the ceremony.

Horse Fair.

There are no cattle fairs, but prizes are given at the annual show for plough and milch cattle. The horse fair as it exists is a very pretty one, the animals produced in this and through neighbouring districts, from which exhibitors are drawn, being of inferior stamp and few in numbers. The fair however is an excuse for a holiday and the gathering enjoy the sports and fire-works, which wind up the proceedings.

Quota for Military Service.

The Military Authorities expect this district to furnish in case of service the following animals:—

Bullocks 1,056 (one military train).
Mules 35
Ponies 40

Gaoshala, known as the Pinjrapole.

There is in the city a home for old, maimed, and diseased cattle and other animals maintained by a Hindu Syndicate, who levy a voluntary cess from their co-religionists to maintain the institution. At this *gaoshala* any animal will be taken in, kept and tended until death, the underlying motive of the institution being of course one of religious sentiment. The Pinjrapole Committee have just bought the Government share of Mauza Walipur in Tahsil Ballabgarh to form a run for the animals.

The district is one which has always stood high amongst the Punjab districts as regards its percentage of protected area, *i. e.*, the area irrigable out of the total cultivation: 57 per cent. is artificially irrigable, 19 per cent. from wells, 18 per cent. from canals, 20 per cent. from *bands* and regulators. CHAP.II.A. Agricultue. Irrigation.

To deal with wells first: the following statement shows the number of wells in each tahsil and the areas irrigable:— Irrigation from wells.

Tahsil.	Area cultivated in acres	Area protected by wells in acres.	Percentage of cultivated area protected	Number of wells.	Irrigable area per well in acres.
Sonepat ...	201,290	65,560	33 per cent.	4,594	15
Delhi ..	185,427	22,056	12 per cent.	1,923	12
Ballabgarh ...	157,338	18,360	12 per cent.	1,197	15
Total District ...	544,055	105,976	19 per cent.	7,714	14

The figures are not quite exact as "wells" is a loose term including both temporary—nominal and permanent masonry wells, but comparison with past statistics shows that in the last quarter of a century there has been steady progress in well making and consequent protection.

There is first the ordinary masonry well made of brick, stone and mortar and constructed to last, and often actually lasting hundreds of years. Next in point of solidity of construction is the dry masonry well. This is found chiefly in the circles near the hills where the vicinity of the rock renders the use of rough, half-hewn, stone very cheap; but there are not very many places where this kind of construction answers. Then there is the wooden well, a well of which the sides are built of curved block pieces of wood, like the segments of a cart-wheel, in length varying from nine inches to two feet. These wells in favourable soil, and not too deep-sunk, last for many years, sometimes a full generation. They are found in many circles, but specially in certain villages of the Khadar. Lower than these in the scale of efficiency and durability is the *Jar-ka-kua*, a mere hole dug in the earth, with its sides fenced round with brushwood of various kinds and thus forming a rude support to the crumbling soil. These wells are of course very cheap, and in most places last only one, two, or three years, though in a firm, hard soil, they may last a little longer. The depth to which they are sunk is of course small, the deepest not exceeding twenty feet. Kind of wells.

Besides these wells is the *jhalar* and the *dhenkli*, the former is found on the side of river streams and *jhils*, and, is merely a variety of the Persian-wheel with larger *tindas* (water-pots); the

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latter is a simple but ingenious apparatus by which the water to be raised comes up in a vessel suspended from the long arm of a lever of the balance kind and its weight is overcome by the weight of a block of hard earth or mud piled on the other end of the lever. The pole constituting the beam of the lever works up and down on a rude wooden fulcrum placed in a fork of the support, which is also of wood. When the water raised is to be emptied into the distributary channel, the weight of the short end holds the vessel at the level of the surface. The manual labour, necessary is employed to sink the vessel in the well; a curiously inverted process, but which answers its purpose. The weight is so graduated as to only just exceed that of the water vessel when full.

Two modes of raising water, *charsa* and *harat*.

As to the means of raising the water there are two kinds of wells; the rope-and-bucket, or *charsa*, and the Persian-wheel or *harat*. The first is the only kind used in the southern part of the district, and up northward to Rathdhanah, *i.e.*, nearly as far as Sonepat. Then comes a small zone in which both *charsa* and *harat* are found, and then beyond this comes the part where only the *harat* is used. Both kinds of wells are so commonly known that it is unnecessary to describe them. There is the question, however, of comparative efficiency as regards irrigation, on which few notes may be made. It is not merely the depth of the spring level that practically decides the question for the agriculturist which he shall use. It is far more, if not entirely, a matter of custom and traditional habit. There are villages in the Khadar, where the water is so near that a Persian-wheel would seem the simplest mode of raising water, where yet from long hereditary use the people employ only the *charsa*. And again in some villages north of Sonepat the water is not so very near as from this cause alone to make the *harat* specially eligible. A fact which is more likely to afford a partial explanation in some cases is the difference in the division of labour. In the *harat* the arduous labour falls alone on the oxen. In the *charsa*, while the animals have to work hard, there is also a good deal of active though intermittent labour for the men. The toil of the oxen in the *harat* is unremitting, while in the *charsa*, though the temporary strain is greater, there are intervals of rest while the animals are coming up from the hollow (*gon*), where they are released from the *lao*. The man driving the Persian-wheel ordinarily sits on the beam behind the oxen as they go round. The influence of the active muscular strain in the *charsa* work is seen in the well developed sinewy frames of the Jats and Ahirs who work at this from morning till night.

Average area protected by a *lao*.

The estimate of the extent of land which can be considered thoroughly protected by a one *lao* well necessarily differs inversely according to the depth and repidity of exhausting the supply. The *zamindars* themselves perhaps think the latter point more important than the actual depth from the surface. Nothing delights a good husbandman more than a strong equable spring of water which he can work at for hours without reducing

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t more than a foot or so; *pakkapani* then he calls it; *kachcha* ›ani on the other hand he complains of greatly, where the water level sinks sometimes as much as six or seven feet in a few hours. In a good many villages the wells cannot be worked continuously all day; rest has to be given to them to get the supply replenished by percolation; ten acres on the average is perhaps a low estimate of protection; the *zamindars* will allow this; about eleven will give probably more really accurate results

Cleaning out wells.

The cleaning out of wells depends much on their position, as of course, one protected by a masonry, coping (*man*) standing a foot or two above the surface of the ground prevents sand and earth from falling in. The Persian-wheel, which generally has nothing of the kind, requires much more attention in this respect than the *charsa*. The latter, if kept fairly full of water, needs cleaning only once in five years, and often not then. The task, when necessary, is performed by the owner or his tenants.

Sinking well.

The expense of sinking a well of course varies very greatly according to the kind of soil in which it is made and the depth at which water is met with. In Sonepat there are three degrees noted; one of the Bangar soil the second is the higher Khadar, the third the land immediately bordering on the river. In digging wells in the Bangar, the soil turned out is very generally stiff loam, with here and there a stratum of *kankar*. Occasionally a small depth of sand intervenes, to be succeeded lower down by the loam as above. In the Khadar this soil is not found, or found only in thin strata; the subsoil is mainly sand. Of course this alters the conditions of excavation. A common plan of sinking a well is as follows: The earth is excavated down to the spring level; then the *nim-chak* is made, a round frame either of *kikar*, *lasora* or *dhak*; the wood is about $1\frac{1}{2}$ foot broad, and a span thick (*i.e.*, high). The pieces are fitted closely together like those of a wheel, and are fastened with nails. On this is bulit up the masonry cylinder (*gola* or *kothi*) This generally extends beneath the surface from 14 to 17 *haths* and above it some 12 or 13 *haths*. On the top of this cylinder a rough frame-work is placed consisting of four large beams, two one way and two another (*dharan*.) On these is heaped up a mixture of mud and earth as a make-weight, and the earth dug out from below is also put on it. The weight thus accumulated sinks the well down to the surface or further. It is then built up again. The old way used to be to sink the cylinder down to the real spring level; but now the usual way is to sink it as said before, down some 14 or 15 cubits, and then bore down in the centre of the cylinder with a *balli* made of two or three beams fitted together and headed with a sharp point. Across this *balli* is fitted a cross beam (*dandila*,) to both endsof which is fastened a well-rope. This is passed over a pulley (*chak* or *bhawan*), as at the well, and then the *balli* is alternately raised and let down, sinking down at each time lower and lower till the real spring is arrived at. This is at 52 *haths*

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beneath the surface, and this point, the natural spring level (*sar*), is called accordingly *bawani*. In the Khadar water is found at 14 *haths*, and the cylinder goes some seven or eight *haths* below this point. The *nim-chak* is made by the village carpenter; the masonry work requires a mason who is found only in the towns or larger villages. In the Khadar the excavation is made by the Jats themselves. In every village are several men who can dive (*gote mar*), and they go down into the water with the *khassa*, which brings up each time enough earth to give hard work to some twenty men to raise it up on to the *dharan* or platform. In the Bangar the plan used to be the same, but since the canal irrigation has rendered the sub-soil percolation more copious, few men not making a regular trade of it can stand the enormous flow of water that comes in below a certain depth, so that the diver who can work in a Bangar *gola* generally becomes known. He has also the dignity of a special name *Siha* and receives Re. 1 per foot of excavation, with a *pagri* at the finish. For beginning the work of course a lucky day is necessary. The *parohit* or some other person possessing the necessary learning is called in, and generally getting something for his pains either a rupee, or some meal and *ghi*, points out the propitious season. It is incumbent on the husbandman at all events to make a beginning on that day; if he cannot conveniently spend much time he must at least dig not less than five hoe-fuls with his *kassi*. The undertaking thus auspiciously begun may then be intermitted, if need be, for a month. There is a practice still obtaining in some parts of placing five vessels full of water on the spot chosen for the well. After standing for a whole night, if they are found full in the morning, the place is reckoned lucky. If not full, expectation of good water is unreasonable. Some of the intelligent *zamindars*, however, doubt whether this is thoroughly reliable. A more reasonable custom is that of distributing alms, large or small, on the completion of the undertaking. When asked what would happen if this is not done, the *zamindars* reply—" who would omit such a good precaution? The work of danger is finished, and thanks are reasonable." The speculative character of the risks in sinking a well is shown by the proverb: "To dig a pond requires but money. But Rama's aid (is necessary) for a well."

Quality of water.

Distinctions are drawn here, as elsewhere, as to the quality of the water, which may be sweet (*mitha*), brackish (*malmala*), or salt (*namkin* or *khara*.) The salt water is of course not good for irrigation; but the brackish wells often produce the finest crops, nor is this good effect confined alone to inferior soils. On superior soil also it is considered best of all to have the first watering (*kor* or *korwa*,) made by brackish water, and then water with sweet. Where there are two wells within a practicable distance of each other, the water of both will be interchanged in this way; the brackish water irrigating the lands of both for the *kor*, and then the sweet water coming over all in its turn. The reason given

for this is that the land requires some degree of saltness; it is alleged that there will be a perceptible difference in the yield of two fields side by side, one of which has the *malmala kor* and the other the sweet. The appreciation of salt as a manure is shown from the fact that it is common to scrape the ground round the *abadi* and carry it on the fields, one cart-load being a dose for two *kacha bighas*. Distinction is even made in the quality of land from its trees; the best *banjar* is shown by the growth of *dhak*; then *bansa* (*Tephrosia purpurea*), and lastly *kair*. The *bansa* itself is known as a salt plant, and consequently the land near the plant for a short time is productive, but, afterwards becomes what it naturally would be.

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Irrigation from bands.

Irrigation from *bands* is a characteristic feature in all parts of the district lying under or near the hills. The principle is that of concentrating the rainfall so as to moisten thoroughly a given cultivated area, allowing surplus water to run or drain off; application of this principle was successfully made on a large scale by the former rulers of the country and in no respect perhaps does the civilisation of the Mughal Empire show better than in this of artificial irrigation. In a report of 1848, written by Mr. E. Battie, in charge of the Najafgarh *Jhil* works, there is an interesting account of two large *bands* (Chhattarpur and Khirki,) but there are numerous others, which only a good local knowledge gives an acquaintance with, for not a few are in out-of-the-way corners, among ravines or on the slopes of not very accessible hills.

Under British rule the first officer to take a practical interest in the *bands* was Mr. Maconachie, Settlement Officer in 1880, on whose initiative several large *bands* mainly in the Kohi circle of Ballabgarh were built. It is not too much to say that Mr. Maconachie has saved the Upper Kohi plain from becoming an arid expanse only fit for goat grazing. He also drew up a most useful report on the whole subject which is printed as an Appendix to the District Borad Report (1883) but unfortunately the District Board took no action and in 1906 when the recent settlement began the *bands* generally were in a very bad state of repair. However, within the past four years all the broken *bands* have been thoroughly repaired, four large *bands* have been constructed at Kot, Dhauj, Badkhal and Asaula at a cost of Rs. 6,000, and surveys and designs for other *bands* have been prepared. The Settlement Officer (Major Beadon) submitted a full report on the subject to Government (Punjab Government Proceedings for August 1910) from which it can be seen that the *bands* have now been brought under the Minor Canals Act, that rules have been drawn up for the proper assessment of *abiana*, and that a scheme for the construction of new *bands* in turn according to their urgency has been outlined.

The general principle of cultivation is by flooding, water being held up till the end of September when the escape channel is opened.

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—
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Wheat is then sown throughout the exposed area except on the absolute fringe where moisture has been insufficient: here is grown barley. The yields are very high: wheat on the very best *sailab* will run to as much as thirty maunds an acre and will average at least fifteen maunds. The rates of *abiana* sanctioned are:— Wheat and its mixtures Re. 1-8 per acre, barley and its mixtures and kharif crops Re. 1 per acre, rates which are levied on areas matured.

The main important *bands* are:—

In the Delhi Tahsil sub-colline tract:—Shadipur and Mahpalpur which together can flood some 300 arces.

In the Ballabgarh Tahsil Kohí tract:—Chhattarpur and Gwalpahari which together can flood about 600 acres.

In the Ballabgarh Tahsil sub-colline tract:—Khirki 300 acres, Badkhal 300 acres, Pakal 400 acres, Dhauj 400 acres, and Kot Sirohi 100 acres.

The remaining *bands* will flood another seven or eight hundred acres, so on the whole at least three thousand acres is protected by flooding from *bands*.

The capital sunk in *band* making amounts to Rs. 78,000, but so far owing to mismanagement the District Board have had no return for their expenditure. The new rates have been fixed so as to ensure the *bands* paying their way and providing a small surplus for the construction of new works.

For further details on this subject the correspondence quoted above should be consulted.

Flood irrigation in the Najafgarh Tract.

The general history of the *jhil* has been described in Chapter I. The system of cultivation is very similar to that which is practised in areas protected by *bands*. The high-lying land which gets no flooding is reserved for *kharif* cultivation, *jowar*, *bajra* and cotton being sown: the submergible area is cultivated in the *rabí*. The floods gradually recede, to begin with from the opening of the regulator at Kakraula Bridge and eventually from natural causes. The *sailáb* land which emerges first is sown with wheat up to December, and the further sowings will be—in February sugarcane, in March melons, in April *jowar*, and in June rice. If the Kakraula regulator is properly supervised and the rainfall is not in patent deficit, the area submergible is about 20 square miles of which nearly 15 square miles is recorded as cultivated, but the culturable area varies according to the extent to which the floods in the main depression dry up during the autumn.

Irrigation from the Najafgarh Drain.

The water escapes to the Jamna through the Najafgarh drain. In the drain *singhara* nuts are regularly grown and from it too, people irrigate neighbouring fields with the aid of *jhalars*: at the tail of the drain close to the cantonment the villagers of Mauza Dhakka obtain some valuable flow irrigation.

Canal irrigation is no doubt the most important of all, for in canal tracts the irrigated area is continuous and not in small patches as in the case of well and *band* irrigation.

The areas in acres irrigable and irrigated are:—

Tahsil.	Chak.	*Nahri* recorded.	Average *nahri* irrigation.
		Acres.	Acres.
Sonepat	Bángar	59,617	41,629
Delhi	Do.	34,721	24,998
	Khandrát	2,827	2,878
	Mauza Delhi	402	302
Ballabgarh	Bángar	952	548
	Total ..	98,519	70,355

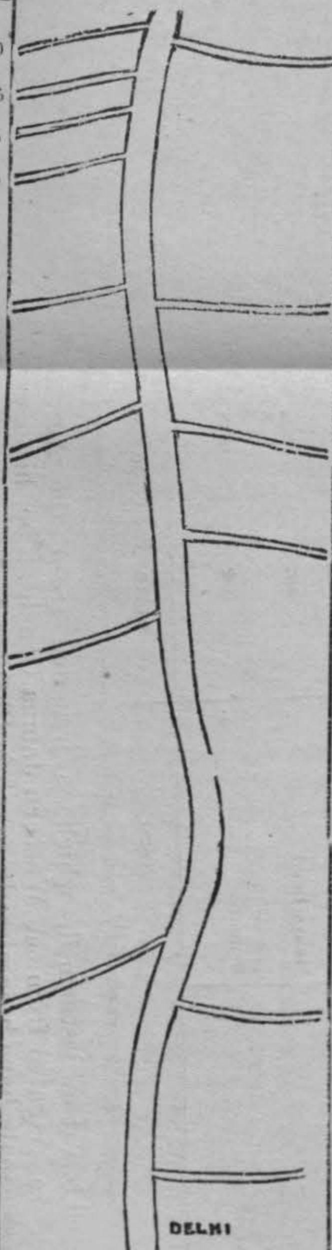
All but the lastnamed, which is irrigated from the Agra Canal, are irrigated from the Western Jamna Canal. The history of these canals have been already given in Chapter I. A.

The general principle is, that the canal passes along a ridge and irrigates the slopes on each side. From the main canal there is seldom any direct irrigation but the water is first passed into a distributary called a *rájbaha* or minor, which is designed originally to supply certain definite villages and the size of the outlet of the distributary is fixed by calculation of the demand. Each village has then its own water-course (*dhána*) taking out of the distributary and the size of the water-course outlet is similarly calculated.

Control then passes out of the hands of the Irrigation Department as once the village has obtained its own water-course, the arrangements for further distribution by channels (*nála*) are made by the people themselves. Thus the tree of the descent is Canal—Distributary—Village Water-course—Water channel. The Irrigation Department are responsible for the clearances of the first two and the villages concerned for the last two.

The following statement shows in detail the various distribution and villages irrigated by the Western Jumna Canal: arranged in this form too it gives a fair notion of the geography of the canal.

Table showing villages receiving irrigation from the W. J. Canal.

1	2	3	4	5
RIGHT BANK.			LEFT BANK.	
Villages irrigated by *Rájbahás* mentioned in Column 2.	Number and name of *Rájbahá* and number of miles which the *Rájbahá* is from Delhi.	Main Canal Channel.	Number and name of *Rájbahá* and number of miles which the outlet is from Delhi.	Villages irrigated by *Rájbahá* mentioned in Column 4.
Bali-qutabpúr, Aholaná, Pugthalá, Sárdháná.	Naraina. Rájbahá, 60 miles.		Ahuláná Rájbahá, 60 miles.	Huláná, Sardháná, Nayá Báns, Khubrú, Muhammadpur Májrá, Sayákherá, Kailáná, Purkhas, Dábarpúr, Sitáoli, Mahrá, Panchi jatan, Chatia Olia, Sandal Kalán, Sandal Khurd, Sháhzádpúr, Bulandpúr, Chilkána, Manak Mazra, Atail Kheri Gugar, Shamspur, Bhanwar, Sheikhpurá, Miyáná, Jalálábád, Bhora Rasulpur.
Bajaná, Pugthalá, Teori, Bajáná Kalán, Mahrá.	Rohtak Rájbahá, 45 miles.			
Teori, Mavi, Dubhetá, Bajáná Kalán, Ataial, Nayá Báns.	Bhalot Rájbahá, 45 miles.			
Teori, Mohadpur, Majrá, Mávi, Sitaoli, Rahmaná, Chatyá Devá, Bhádi, Rolad Latifpúr, Salempúr Torali, Nainá Tatarpur, Salárpúr, Majrá, Bohlá, Dudwah, Pinánah, Dubehtá, Juán, Bohlá, Mohaná, Gohná.	Bhainswál Rájbahá, 45 miles.			
Júán Kakrot, Naina Tatarpur, Badshahpur Machri, Khizarpúr Ját, Jaji, Bhatgáon, Mobaná, Lohari Tibá, Salemsar Majrá, Gohná, Máhipúr, Nikloi, Tibará Kalán, Nirthán, Kheri Dayá, Tibárá Khurd, Badhana, Bagrú, Mahlaná.	Júán Rájbahá, 36 miles.		Sonepat Rájbahá, 38 miles.	Mahra, Butáná Jáfarábád, Chitána Kalorad, Sháhzádpúr, Tharú, Sonepat, Barwásni, Ouldipur, Jwáhri, Garhi Brahmnan, Mahlená, Jamálpúr, Kakroi, Lahrará, Kálupur, Bayánpúr and Harsaná Kalán.
Kakrobi, Badháná, Rohat, Jharauti Jharut, Kiwali, Anandpúr, Fatehpúr, Muhamadábád, Bidhnoli, Bhúápúr, Tháná Khurd, Garhi Bálá, Mandourá, Hasangarh, Nilothi Lohár Heri, Tháná Kalán, Turakpúr, Mandori, Jataulá, Saidpur, Ferozpúr, Nizámpúr Khurd, Kundal, Mungashpúr, Qutabgarh, Khor Punjáb, Jaunti, Chatesar, Garhi Rindhalá, Ládpúr, Nizámpúr, Reshídpur, Saodah.	Páí Rájbahá, 29 miles.		Kakroi Rájbahá, 29 miles.	Kakroi, Rohat, Bayánpúr, Harsáná Kalán, Násarpúr Bángar, Bhawapúr, Bidhnoli, Garhi Balá, Mandorá, Abbaspúr, Chatera Bahádarpúr and Ládpur.
			Lámpúr Rájbahá, 18 miles.	Halálpúr, Nahri, Jhanjoli, Qatlupur, Lámpúr, Bankner, Ghogá, Sanoth, Bhoregarh, Razápur Kalán, Narelá, Mamurpur, Kureni.
Harevli, Jhinjholi, Ochandi, Ferozpur, Daryápúr Kalán, Bawáná, Puth Khurd, Halálpúr, Jataulá, Mongashpúr, Katewra, Bazídpúr, Saláhpúr, Khorejat, Qutabgarh, Khore Punjab, Chatesar, Jaunti and Ládpúr, Nangal Thakran, Bazídpúr Thakran, Chandpur, Kanjháolá, Saltánpúr Dibás, Karálá, Ráni Khera, Madanpúr, Rasúlpúr, Gheorá, Sáodhá, Nizámpúr Rashídpur, Tikris Kálan, Jáfarpur, Hasánpur, Barwála, Begampur, Puth Kalán, Rithá'á, Pansálí, Muhamadpúr Mazri, Mubárikpúr, Nithári, Karari-Suleman Nagar, Mundká, Qamrud-din Nagar, Nangloi Ját.	Bawáná Rájbahá, 16 miles.			
Kherá Khurd, Puth Khurd, Barwalá, Pahládpúr Bángar, Kherí Kalán, Sahabábád, Siraspúr, Alamgírpúr, Rithálá, Naharpúr, Magholpur Khurd, Magholpur Kalán, Salempúr Mazrá, Nangloi Ját, Nangloi Sayad, Garhi Pírá, Jawálá Heri, Mádipúr, Shamapúr, Bádlí, Haiderpúr, Pilampurá, Sahipúr, Yaqúbpúr, Shakorpúr, Basai Darapúr and Chowkri.	Garga Toli Rajbahá, 13 miles.		Siraspur Rájbahá, 9 miles.	Bawána, Hulambí Khurd, Hulambí Kalán, Irádat Nagar, Kherá Khurd, Alipur, Nayá Báns, Kherá Kalán, Bodhpur, Naglipuná, Siraspur, Libáspúr, Shamapúr, Bádlí, Haidarpúr, Sahipur, Pipal Thala, Bhalswá Jahángirpúr & Bahrolá.
			Wazírpúr about 5 miles from Delhi.	Yaqutpúr, Wazírpur, Rajpúr, Malakpúr, Sadhorá Kalán, Azádpur.

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Crops irrigated.

Such a statement is unnecessary for the Agra Canal, as there is only the one small plot of irrigation from it in this district.

The irrigation returns show that the crops irrigated from canals in the respective harvests are as follows :—

Kharíf.		*Rabí.*	
Millets	4 per cent.	Wheat	40 per cent.
Pulses	1 do.	Barley	1 do.
Cotton	15 do.	Pulse (mostly gram) ...	8 do.
Cane	15 do.	Oilseeds	1 do.
Others	8 do.	Others	7 do.
Total ...	43 per cent.	Total ...	57 per cent.

So, when water is scarce in the winter, a large area is lightly irrigated and when it is plentiful in the summer dense irrigation is given to crops like cane. Presumably the *zamíndárs* know best, but it is questionable whether it would not be better to irrigate a smaller area in the *rabí* more thoroughly, as in January the canal supply is usually at its lowest and it is not always possible to give the sown crops a second timely watering.

State charges for canal water.

Formerly the State charges for water were of an intricate nature, separate rates being levied on the cultivators and land-owners. The former had to pay occupier's rate and the latter were liable for an owner's rate and also for cesses. Since the calculations involved were found to be excessive, all these rates have been consolidated as an occupier's rate and a small addition to the fixed assessment of each village as *nahrí parta* has been imposed. The rates at present in force on the two canals are :—

Canal.	Class.	Nature of crops.	Rate per acre. Flow.			Rate per acre. Lift.			Per.
			Rs.	a.	p.	Rs.	a.	p.	
WESTERN JUMNA CANAL.	I	Sugarcane	9	0	0	6	0	0	Crop.
	II	Rice and waternuts	6	8	0	4	0	0	Crop.
	III	Tobacco, poppy, vegetables, gardens and orchards, drugs and spices ...	5	8	0	3	8	0	Gardens and orchards per half year: the rest per crop.
	IV	Cotton, indigo and all *rabí* crops, except gram, *masúr* and maize	4	0	0	2	8	0	Crop.
	V	All other *kharíf* crops, gram and *masúr*	2	8	0	1	8	0	Crop.
	VI	Single watering before sowing between 15th June and 15th September not followed by a canal irrigated crop in the same or subsequent harvest.	1	0	0	1	8	0	Watering.
		Crops grown on the moisture of a previous crop.							Crop.

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Agriculture.

Canal.	Class.	Nature of crops.	Rate per Acre. Flow.	Lift.	Per.
			Rs. A. P.	Rs. A. P.	
Agra Canal.	I.	Sugarcane	8 0 0	4 0 0	Year.
	II.	Rice	5 0 0	5 0 0	Crop.
	III.	Tobacco, poppy, vegetables, orchards, gardens and waternuts, and all *rabi* crops, except gram, linseed, and peas.	5 0 0	2 8 0	Orchards and gardens per half year: the rest per crop.
	IV.	Gram, linseed, peas and all *kharif* crops other than those specified in classes I, II and III.	3 0 0	1 8 0	Crop.

Section B.—Rents, Wages, and Prices.

Cultivating Occupancy of Agricultural Land.

The principal facts regarding cultivating occupancy and classes of rents paid, as ascertained at the recent Settlement, are given below :—

Occupied by owners ...	...	56 per cent.
Occupied by tenants free of rent	...	2 do.
Occupied by occupancy tenants ...	cash rents ...	9¼ do.
	kind rents ...	¼ do.
Occupied by tenants-at-will ...	cash rents ...	25 do.
	kind rents ...	7½ do.

The figures for Ballabgarh Tahsil have changed somewhat since this list was prepared as so much land hitherto owned by the State has been sold to the cultivating tenants (see Chapter III C). The history of the tenancies has left a large number of the tenants in an usually strong position : many occupancy tenants pay no rent beyond the land revenue and cesses and consequently regard themselves as owners, being quite prepared to claim ownership rights if the recorded owners attempt to raise the rents : many tenants-at-will too are prepared to claim occupancy rights if similarly harassed. The occupancy tenants are ordinarily recorded as holding their rights under definite sections of the Tenancy Act, the section 8 tenants being in the majority, but a few instances still exist in which it is impossible to record the sections until there has been an authoritative decision of a revenue court. The percentage which *khudkasht* land bears to the total cultivation has steadily declined of recent years partly owing to the alienations to non-agriculturists and partly to the higher cash rents which landlords can now obtain : in the latter case competition for land on the part of tenants is indicated.

The rent statistics of the district have been carefully analysed in the assessment reports, consultation of which will show the wide differences which exist according to the quality and position of the holdings. Rents paid by occupancy tenants are not of great moment because they are determined largely by long standing custom and can seldom be altered without recourse to a Revenue Court, a proceeding to which resort, as a rule, is only made when important interests are involved. **CHAP. II.B. Agriculture.** Agricultural Rents.

Produce rents are uncommon being only found in the north-west corner of the district where the old custom has survived and in localities where cultivation is so precarious, being dependent on uncertain rainfall or submersion, that the tenants cannot afford to pay regularly a fixed rent. Such localities are the lowlying tracts of the Khádar and Dábar and the arid Kohí circles. The general *batái* rent rate is one-half on all irrigated land, except when sugarcane is grown for which the rate is usually a third and often a fourth: though on unirrigated land half is taken, one-third is more common, so two-fifths (which is also a recognised rent) probably represents a fair average. In the case of gardens a curious mixed rent, a share-profit cash rent, is found by which the landlord obtains one-fourth of the price for which the garden produce is sold to the fruit contractors. Produce Rents.

Of cash rents which are not expressed in terms of land revenue, it may be said that the broad standard is Rs. 4-12-0 for *báráni* land and Rs. 9-8-0 per acre for irrigated: slightly higher rents are found in Sonepat, and in the Bángar and Khandrát circles of Delhi, more especially in respect of the irrigated land. If the soil is strong *dákar* the rents will be increased fifty per cent. and more: if it is sandy *bhur* the *báráni* rents diminish to Rs. 3 and, in the worst cases in the Kohí, even down to Rs. 1-8-0. The highest rents obtainable are those for the market gardens about Delhi where (excluding the sewage farm) Rs. 20 per acre is the maximum. The average rental of gardens is some Rs. 27 per acre if the landlord owns both the land and the trees; but if the curious *sardarakhti* tenure exists (by which the tenant owns the trees) the owner will not obtain more than from Rs. 6 to 8 which is in effect a ground rent. Cash Rents.

Cash rents of the nature described above are almost invariably lump rents (*chakota*), levied on the whole holding: they are based on an estimate of the area in *kachha bighas*—an estimate which is often made by the people themselves without reference to the areas recorded in the Revenue papers. To what extent the recorded rents are collected is a matter of speculation, but the inquiries at Settlement led to the general belief that in secure tracts one anna and in insecure tracts two annas per rupee should be considered as the average amounts, which the landlords eventually fail to realise.

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Agriculture.
Zabti Rents.

Zabtí rents, *i.e.*, cash rents levied on particular crops, are very rare indeed and are quite unimportant.

Rents on waste land.

In the rural district rents on waste are seldom levied, as the villages keep the waste for common grazing, but in a few Khádar villages which own blocks of uncultivated land producing brushwood or thatching grass, local contractors are forthcoming who take annual leases, for which no general rate can be quoted. Close to Delhi grazing waste is valuable and will let for as much as Rs. 3 per acre: in the same neighbourhood too open spaces suitably situated for the erecting of brick kilns, storage of goods, etc., will command rents which amount to Rs 30 per acre.

Causes of the rise in agricultural rents.

Comparison with the statistics of 1880 show that there has been a great rise in cash rents following the rise in prices of agricultural produce. Nothing is more interesting in the agricultural system of the district than to watch the slow, unconscious, and, so to say, half-blind way in which the relations of landlord and tenant are adjusting themselves in accordance with the progress and development of the country, the comparative increase of intelligence among even the *zamindárs*, and the general rise in prices which is so important a feature of agricultural history of the past twenty years.

Rents of Residences.

In villages which belong to a single owner ground rents for houses at the rate of Re. 0-8-0 per house will be levied. In the city quite humble tenements are let for Rs. 10 per mensem and in the Civil Lines and cantonments bungalow rents may be anything from Rs. 50 to Rs. 120 a month. Bungalow rents have increased some fifty per cent. during the last decade, a fact which, combined with the fancy rents paid at the time of the 1903 Durbar, gave a great impetus to building, an impetus which was increased by the announcement of the intention of His Majesty the King-Emperor to hold a Durbar at Delhi in person. The situation has now been entirely altered by the transfer of the seat of Government to Delhi, and for the next few years, while the temporary quarters of Government are located in the present Civil Lines, there is certain to be a heavy demand for bungalows. The ultimate fate of Civil Lines will depend on the decision reached as to the permanent Capital.

Wages for labour (Table 25, Part B).

The wages for skilled labour vary from 5 to 8 annas a day: the highest rate is obtainable in the city by good *mistrís*, *darzís* and other artisans who work for a daily wage: when, however, such men work for a monthly wage they obtain up to Rs. 20 per mensem. In the rural district, even in the small towns, a skilled artisan can hardly expect to earn more than 6 annas a day. Coolies working in the city can obtain 5 annas a day fairly regularly, whilst those elsewhere will earn not more than 4 annas. The figures in the table show that the labour rates are gradually increasing and rather more rapidly in the *mofássil* than in the towns.

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Domestic servants' wages too have gone up considerably of recent years, quite 50 per cent. within the last decade.

The scale below represents fairly accurately the general rates of monthly wages now prevalent.

	Rs.		Rs.
Bearer	20	Málí	9
Khidmatgár	12	Saís	9
Cook	18	Gráss cut	7
Bhisti or Masálchi ...	9	Sweeper	8
Dhobí	10	Chaukídár	7

These are rates paid by Europeans: Indian gentlemen obtain servants for less, and of course the rates vary, agreeably to oriental custom, with the position and income of the employer. The gradual advance has followed the rise in prices: on occasions when the price of grain has increased, the domestics have obtained an extra rupee here and there, and the higher wage has generally remained even when the price of food grains has gone down again.

Village Servants and Menials.

In the villages the system of paying the servants and menials by a share of the produce is still maintained, so the rise in prices has automatically raised the value of the wage. The only cash payments are those paid to labourers (*kamera*) who are in merely temporary employments: a man will be paid 4 annas, a woman Re. 0-2-6 and a boy about Re. 0-1-6, as a general rule.

The village menials or *kamins* are the following :—

Chamars (Leather workers)	*Nais* (Barbers)
Chuhras (Sweepers)	*Dhobis* Washermen)
Khatis (Carpenters)	*Sakkas* }
Lohars (Blacksmiths)	*Jhinwars* } or (Water-carrier).
Kumhars (Potters)	*Kahars* }

Chamars make shoes, weave cloth and work as agricultural labourers. Those who work in the fields receive one-twentieth share of the produce, and one or two *rotis* daily on the days they work. They have also a right to the skin and carcases of animals dying in the village. They give one-eighth share of the carcase to the *chuhras*. *Chuhras* collect manure, and sweep the houses of the villages. Each has from ten to twenty houses under his charge. They receive one *roti* daily from each house and a few seers of grain at harvest time. *Khatis* make plough and all farm implements required by the villagers. They receive 20 seers of grain at each harvest per plough. Lohars make the iron work of ploughs, and also iron tools such as *khurpas*, *gandasahs*, etc. Like the *khatis* they receive half a maund of grain per plough each harvest. *Kumhárs* make earthen jars, vessels, etc., for which they receive payment in grain. Their remuneration is not fixed. Nais also act as agents at betrothals and marriages: for barbers work they receive one roti. They have no fixed remuneration, but they receive from Rs. 4 to Rs. 20 at marriage. The father of the bridegroom gives his *nai* Rs. 4 and from

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Rs. 8 to Rs. 20 to the *nai* of the bride's father. *Dhobis* receive five seers of grain each harvest, also one *roti* when they wash clothes. *Sakkas*, *Jhinwars* or *Kahars* receive five seers of grain each harvest.

For purposes of assessment the wages of the village servants and menials were calculated with some care (see para. 34 of Assessment Report of the Southern half of the district), and it was reckoned that generally the agriculturists obtain in lieu of wages about 8 per cent. and others about 2 per cent. of the total agricultural produce.

Landlords who cannot let their land to regular tenants or who prefer to cultivate themselves are wont to employ a ploughman (*sajhi*) who is not exactly a servant, as he is given an interest in the profits and occasionally lends a bullock or a yoke of oxen. The *sajhi* sometimes supplies a share of the seed too, but always pays a share of the revenue according to the share (generally $\frac{1}{4}$ or $\frac{1}{3}$ of the produce which he receives.

Petty village grantees.

A certain number of persons hold service grants from the village. Sometimes the land is leased to the grantee at a favourable rent, or on condition of payment of revenue only; sometimes the owner cultivates and pays the revenue, making over the produce to the grantee; while occasionally the grant consists of the right of property in the land, which, subject to the usual incidents, such as responsibility for revenue and the like, vest in the person performing certain specified services at such time and for so long as he performs them. These grants are most commonly made to village menials and watchmen on condition of, or in payment for, services rendered, to attendants at temples, mosques, shrines, or village rest-houses so long as they perform the duties of the post, and for maintenance of monasteries, holy men, teachers at religious schools, and the like.

These grants are known by the names *dohli* and *bhondah* which are sometimes confounded, but should not be so, as they are really different in a material point. The *dohli* is a grant of land for cultivation made in return for religious services, such as attendance at a shrine, or giving water at a well, provided it be done by a Brahmin, *fakir*, or other holy person. A *bhondah*, on the other hand, is a grant of inferior degree, to persons of inferior degee, in return for ordinary menial services, and has no connection with religion: the *bhondadar* is generally a *chamar*, carpenter, *bhisti* or the like. If he does not do what is expected of him he is deprived of the *bhonhah* land. A *dohlidar*, on the other hand, is not under this control. If he himself goes away, giving up the land, then it may be given to some one else, but not otherwise; although the idea of surrendering altogether the proprietary title is never entertained. This kind of village grant is a kind of *muafi* held from *zamindars.* The *dohli* is generally smaller than

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the *bhondah*, though neither is found over ten *bighas* in extent; the total extent of land held in *dohli* and *bhondah* is roughly 500 and 200 acres, respectively. In the revenue records such men are often recorded as occupancy tenants under Section 8, Tenancy Act, though it does not define accurately their legal status: the entries were wrongly made but the areas are so small that the owners have not worried to contest them.

Retail price, Table 26 A.

The retail prices of the Delhi market for the past half century are shown in the table from which the following figures are extracted, the prices being stated in seers per rupee :—

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detail.	Average 1861—70.	Average 1871—80.	Average 1881—90.	Average 1891—1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Bájra	22	22	20	17	22	18	21	22	21	12	16	8	14	16	16
Jowár	23	25	23	20	24	21	25	26	27	13	19	10	15	17	18
Wheat	20	19	18	14	10	15	16	15	16	11	12	7	8	10	13
Barley	23	27	25	20	17	22	21	25	28	14	18	9	13	18	20
Gram	21	24	24	19	11	19	19	21	25	13	16	9	10	16	20

The grains quoted are the staple food of the district; the poorer classes however subsist largely on *bejhar*, the prices of which are at a figure between that of its component grains, barley and gram.

Commutation prices.

The following table gives the rates (annas per maund) which were sanctioned as commutation prices for the purpose of compiling the produce estimate when assessments were being considered: the approving order was passed on the Settlement Officer's preliminary report :—

Jowar	...	22	Wheat	...	33
Bajra	...	26	Barley	...	22
Cotton	...	70	Gram	...	24
Gur	...	45	*Gojai*	...	27
Maize	...	23	*Gochani*	...	29
Mung	...	30	*Bejhar*	...	23
Mash	...	32	Tobacco	...	72
Moth	...	28	*Sarson*	...	48
Chillies	...	24	*Taramira*	...	32

The figures in question were arrived at by taking the average wholesale prices (Table 26, Part B.) of the Delhi market for a long series of harvests (excluding those which were termed

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famine harvests) and by deducting some 6 annas per maund as being the cost of bringing the commodity into Delhi. Comparison too was made with the prices entered in the tahsil note-books. It was not considered necessary to vary the prices for the different tahsils in view of the fact that the district is so well served with roads and railways.

As the tables show, the variations in the annual prices depend almost entirely on the character of the harvests: the 1896-97, 1900-01, 1908-09 were years of very short rainfall and prices were in consequence exceptionally high: on the other hand in the good years 1893-94, 1898-99 and 1904-05 prices fell. Owing to improvement in communications throughout the country the oscillations of prices are not so severe as in the past, yet civilization has caused a marked rise (about 75 per cent) in prices during the past half century by the opening up of the home market to Indian produce.

The weights used for ordinary purposes are according to the standard scale of maunds, seers and chattaks. Dealers in ivory recognise the avoirdupois pound: jewellery is weighed by the common Indian weights called *cháwal*, *ratti*, *másha* and *tolá*.

Measures.

The English yard with its sub-divisions into feet and inches is in common use, but *darzis* subdivide the yard into 16 girahs, on the analogy of 16 annas in the rupee or 16 *chataks* in the *ser*: *mistrís* who require a small unit sub-divide the inch into 8 *sut*. Builders recognise as a unit a building yard (*imárti gaz*), which is 33 inches in length and is sub-divided by them into 24 *tasu*.

The rural measure of area is the *kachha bigha* which is 5-24ths of an acre: close to Delhi itself people in speaking of the *bigha* refer to the *pakka bigha* which is three times the size of the *kachha bigha*: the latter however is far the more common and for this reason is the measure of area used in the record of rights. The sub-divisions are the *biswa* (1-20) and the *biswansi* (1-400). The unit of land measurement is the *gatha* of 99 inches, so the local square measure runs:

99 inches	...	...	... 1 gatha.
1 square gatha		...	... 3 biswánsís.
20 biswánsís		...	... 1 biswa.
20 biswa	...	...	... 1 bighá (kachha).
4⅘ bíghás	...	...	... 1 acre.

Material Condition of the People.

Probably in no Punjáb district will be found such a contrast of wealth and poverty as is found in Delhi. In the city are many wealthy merchants and property owners living in great comfort and luxury: some keep motor cars and all keep horses and carriages of which many are of a high grade. The *Láláji's* fast trotter and gig are quite a feature of the place. Such men still retain the old fashioned style of raiment for ordinary and even ceremonial use, but the younger men of all creeds are adopting clothes of an English

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Rents, wages and prices.

cut. In their houses too will be found furniture of good quality imported from England or else made in the best of Indian shops. Many of such men are very wealthy, possessing indeed more of this world's goods than many a country noble who rejoices in the hereditary right to style himself Rájá or Nawáb. The upper middle class consists of professional lawyers or shop-keepers who have been successful in business: some come of good stock but in this class the majority are men who by their own abilities have come to the front to an extent which would have been well-nigh impossible under oriental rule. Such men from their very history have gone farther towards adopting European customs in food, dress and pursuits, though of course with less wealth at their disposal there is not so great a display. A middle class clerk whose salary will be anything from Rs. 50 to Rs. 100 lives a somewhat dull life: paying a high rent and having to appear in clean respectable clothes does not leave any great margin for luxuries, after the family have been fed and clothed. His sons are probably being educated to a higher extent than the father, and, although the early stages of education are cheap, provision has to be made for the higher education by which alone examinations qualifying for State or professional service can be passed. The petty tradesmen do no more than eke out a humble existence, but a livelihood is certain as they deal in such necessaries as always command a sale. Amongst the artisans and depressed classes, there is seldom distress: true, their incomes are small, but then their wants are few: the squalor of their surroundings is due far more to ignorance and want of civilisation than to want of means.

In the rural district the material condition of the *zamíndárs* has its ups and downs: the lean cycle of years, reducing as it did the number of cattle, left the people as a body at one time in a low state, but agriculture and agriculturists have a wonderful power of recuperation if there are a few good seasons. The canal tracts are naturally the richest as being most secure: there the people live in good weather proof houses, some being built of brick and all well furnished as regards the humble furniture and utensils which suffice for a peasant's wants. Many men keep ponies of an inferior stamp: the women are plump, well dressed and laden with cheap jewellery and many a man will be found to be wearing a silver *tagri* (a chain belt). In the Sonepat Khádar too there are similar signs of wealth, though not to the same extent. The poorest tract of all is the Ballabgarh Tahsíl: in the Khádar villages the houses are often miserable, being mere shelters with a thatched roof surrounding perhaps a few more pretentious abodes. In the Kohi the villages are still poorer, but with building stone so handy more permanent houses have been made, so poverty is not so evident on the surface. Perhaps the most noteworthy difference observable in the rich and poor tracts is that in the former the superfluous wealth of bygone days has permitted religious buildings such as gaudy temples, *dharmsalas* and mosques to be freely

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built, whereas in the latter the outward signs of belief are most humble, if not entirely wanting. Withal it must be remembered that the district is one in which famine in a severe form should be a rare visitant. The poorer tracts are all within easy reach of the city, where there is always a demand for labour in the factories, godowns, railway yards and other commercial quarters: a man with a cart and a pair of bullocks can always earn a good wage. Villagers on the outskirts of Delhi and even from a distance make considerable profit from the sales of fowls, eggs, milk, *ghí*, grass, fuel (*uplás* or cowdung cakes), and vegetables: every morning droves of laden bullocks and donkeys, and also men and women carrying loads, can be met on any road coming into the town. The District Board alone spends annually half a lakh in wages paid for repairs to buildings, roads and bands, and the Irrigation Departments can and do provide people with employment in preparing metal, sawing, splitting and stacking wood.

Further the returns compiled at the time of settlement show that Rs. 3,10,000 is earned by Government employees; such are mostly working in the civil departments as policemen, clerks, *patwáris*, *chaprásis*, etc., but not a few, Ját and Gújars in the main, have adopted a military career.

Broadly speaking the Delhi *zamíndár* is not at all badly off: he spends little on dress or his surroundings but he has good credit and is not burdened by debt. A marriage, a funeral, bad luck with his cattle may cause him temporary embarrassment from which he will recover in time, but there is no recovery once a man has put his name to an unconscionable deed and become enmeshed in legal proceedings.

Section C.—Forest.

Forests.

The district contains very little in the way of forests: every village has a certain amount of grazing waste in which are found the common trees of the country: a state of affairs which specially maintains in the Khádar villages of the Ballabgarh Tahsíl. Around Delhi itself the lowlying *bela* land is in parts kept as a grass reserve, but such areas produce neither fuel nor timber. A few villages notably Mohana, Murthal Kalorad, Júán in the Sonepat Tahsíl, Nizámpúr, Rashídpur in the Delhi Tahsíl, Kotra Mahbatábád and Pálí in the Ballabgarh Tahsíl have large areas of wooded waste which the *zamíndárs* preserve with some care, in order to sell periodically such timber as has matured. The banks of the two State Canals constitute long strips of forest which, containing as they do many fine trees of all kinds, bring into the Department a substantial income.

A characteristic incident of land tenure in the district is the reservation of wood-producing land in the *shámilát deh* as an enclosure whence no fuel or wood is to be cut. This is generally connected with religion in the shape of a *fakir's* hut, or grave or a religious shrine; but sometimes no such religious element is observable, and in such cases the practice is probably due to the love of shady

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Forest.

trees which not unnaturally is possessed strongly by the *zamíndár*. In these *rakhyas*, as they are called (perhaps from *rakhna* to hold, or keep), the prohibition against cutting or using the wood is no mere form of words. As a rule indeed the people, with that faculty of docile obedience which is at once such a help and a trouble (when it degenerates, as so often is the case into slavish adherence to custom) to the administrator, observe the social precept without asking more about it. But if a man transgresses by cutting the wood, he is fined at different sums, generally twice the value of the wood. If he does not pay, he is put out of caste, but, as a fact, the villagers say a fine is always paid without excuse. Money thus obtained is spent in charity.

Three *rakhs* are under the management of the local authorities. They are called Shikárgarh-Taláwari, Andhauli (280 acres) and Kayatwára. Of these the first lies 20 miles south of Delhi and was originally a shooting preserve, formed by the Rájá of Ballabgarh out of lands confiscated from four villages. It lies on the bank of the Jamná and has at present an area of about 1,000 acres. It is maintained as a fodder and fuel reserve, but some of it is leased for cultivation. The management vests in the Deputy Commissioner and trouble has been experienced in securing the full profits of the *rakh* to Government. The other two *rakhs*, or rather *belas*, lie north of the city within municipal limits and are in charge of the Committee. They were probably formed out of *taiul* lands in pursuance of the policy adopted in 1857 whereby an attempt was made to create fuel and fodder reserves out of waste Crown lands. The Committee has, however, used these *belas* not only as grass reserves, (they are not adapted for the production of fuel) but also as a depot for the deposit of nightsoil. Leases for melon cultivation are also given. The *belas* are not remunerative to the Committee, though they yield an income of Rs. 6,000 a year. The *bela* of Chandráwal no longer exists. Part of it was closed for the Water-works and part exchanged for land taken up for them. The rest has been washed away by river action.

Section D.—Mines and Minerals.

Mines and Minerals.

In Chapter I A, a brief mention has already been made of this matter under the head of Geology and there are no further remarks to record.

Section E.—Arts and Manufactures.

Arts and Manufactures

The reputation of Delhi as a manufacturing centre is perhaps greater than is warranted by the actual state of the industries now practised there. Many of the trades for which the city is famous, like those of Lucknow, Gulburga and Haidarabad (Deccan) are relics of the Musalman Courts, and only precariously survive. Nearly all are now, so far as their profits are concerned, in Hindu hands. Before it was a Mogul capital Delhi was a Hindú city; and it would seem that in wealth and in social and political influence the Hindús are resuming their ancient sway. And the tendency of the leading castes in modern times is more towards

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Arts and Manufactures.

trade as a means of accumulating money than towards craftsmanship. So, while the city is growing, and must from its position continue to grow in commercial importance, it is doubtful whether the arts by which it is historically known are equally flourishing.

At the same time new industries have sprung up to take the place of dying arts, and the very arts themselves have become modernised to meet the public taste. The crafts and industries in which machinery is not used and which are dependent on the skill of the workers, are so numerous that for an intelligible description they must be described in turn under major heads. In the following pages the arrangement is as follows:—Jewelry, Metal working, Artistic painting, Leather work, Stone work, Textile weaving, Decorative cloth-work, Wood work (ornamental and useful), Ivory Carving and Miscellaneous.

Jewelry.

The jewelry of Delhi was a favourite theme of the early European travellers who visited the city. There is now but little scope for the sumptuous extravagances of which they wrote, such as the peacock throne and similar works; but the tradition remains and one of the special excellences of the Delhi jeweller is still his consummate skill in mounting and arranging gems, sometimes of great price, but also often of little intrinsic value, so as to produce the greatest amount of artistic contrast, richness, and variety. In these days this branch of the art, once practised on a large and costly scale, is confined to smaller articles of adornment. The throne, the belt, the slipper, the spear, the sword, the elephant *howdáh* and goad are but seldom incrusted with gold, enamels and jewels as formerly; and most Anglo-Indians know Delhi jewelry as an assortment of lockets, rings, crosses, bracelets and necklaces, as European in their details as in their purpose. Articles made for wealthy natives, even when they preserve traditional forms, are growing noticeably neater in execution, with a neatness that counts for nothing as art, and more timid in design, while there is less variety of pattern than formerly. European designs are growing popular, especially among those Indian ladies who have come under the influence of missionaries or indeed under any educational influence. Costly articles are now but seldom made in Delhi. Such articles are however sometimes sent from distant places for resetting and repairing, which shows that the Delhi workman is still in demand.

The telegraph and the modern facilities for travel have brought the precious stone trade of the world together in a way that is surprising to those unfamiliar with its workings: it is now, as always, a somewhat secret branch of commerce. German Jews, trained in Paris, are perhaps the most prominent and leading dealers. There is scarcely a wedding or an accession affording an opportunity for the sale of precious stones that is not telegraphed to Paris, London, St. Petersburgh, Amsterdam, Berlin and Vienna. Delhi and the rest of India are now included in this secret syndicate, and are periodically visited by dealers

who come and go unnoticed; so that Tavernier was but the forerunner of a succession of jewel merchants. Delhi dealers sometimes travel to collect stones and also receive them from abroad on approval. For pearls, Bombay is a great market: the stones coming from the Persian Gulf, Basra and Colombo, but those from the latter place are not of such good quality. In coloured stones this city has still a considerable trade, and the greater part of the valuable find of sapphires in the Kashmír territory has been absorbed by the Delhi jewellers, while sapphires of an inferior class are received from Burma, Mandalay and Colombo. The two latter places also supply rubies, those from Mandalay being the more valuable. Emeralds come from Spain and Burma and diamonds, needless to say, from South Africa while Golconda supplies the Indian equivalent. The gold is all imported in bars from England. The gold used is mostly 18 carat, though for special orders 12 to 22 carat gold is also used. Most of the Delhi jewellers are the agents of bankers.

The banker of the East adheres to the practices of the guild that are comparatively neglected by the great money dealers of Europe, and counts jewels among his means of trade, and not merely as objects to be kept in a safe. The name of the actual workman never appears in connection with the more costly articles of Delhi production. Some of the most skilful are said to be men of extravagant habits, and all are entirely in the hands of the dealers who keep them practically enslaved by a system of advances. This, indeed, is the case in most Indian handicrafts, and the astute Hindú dealer resembles the London tradesman in his efforts to efface the maker of the goods he sells, and to pose as the actual producer. Even miniature painting on ivory, which would be supposed to be an art where the name of the artist is absolutely essential, is said to be in many cases produced by quite other men than those who sign the pictures.

Enamelling on gold as an accessory in jewelry is practised but not to such an extent as formerly; it is not easy to distinguish the Delhi work from that of Jáipúr, but the latter is the less expensive.

As to the objects produced, there is scarcely anything called jewelry that cannot be imitated at Delhi; and the continual passage of tourists has created a demand for several varieties of native work not strictly belonging to the locality, as well as for articles of English style. Massive rings with one precious stone set in strong open work, and almost as well finished as those in a Bond Street window, are now as frequent as the rings with several stones which are perhaps more like the true Delhi notion. Many of these are tastefully arranged and skilfully mounted. The embossed silver work of Madras, with Dravidian figures in relief, known as *swámí* jewelry is more coarsely imitated. Filigree has always been used as an accessory to more solid work and now the

CHAP. II.E. — Arts and Manufactures. Jewelry.

lightness of Genoese or Cuttack articles is sometimes attempted. Silver and silver gilt wire woven into a kind of matting pattern is applied to belts and bracelets. All the varieties of watch chain are imitated and some adaptions of native chains have been done. The patterns of necklaces worn in the hills are now regularly wrought at Delhi. In gold, suites of amethyst, topaz, turquoise and other stones are made. The gold frame work is sometimes twisted or of *bábúl* work. This last is one of the oldest and most characteristic forms. The name is taken from the pretty and sweetly scented flower of the *kíkar* which is a ball of delicate yellow filaments. It is also called *khár dár*, or thornwork: this style, however, is not in fashion now and is rarely seen in the shops Convex forms, as the centres of brooches, the fringing balls set round miniatures, etc., are studded over with minute gold points, each of which, with a patience and delicacy of hand that defy European imitation, is separately soldered to the thin plate base. Good, soft gold alone is used for the points, while the base is of slightly inferior metal. The articles are finished by being placed into a sharply acid bath, which produces a clear, mat gold bloom, that does not long survive wear and tear. A similar but bolder form of work is called *gokhrú*, and is based apparently on the *bur* (the caltrop of Indian and also of mediæval European warfare—a ball studded with spikes thrown to impede the progress of cavalry is also called a *gokhru*). This is worn by Ját men as an earring, and the same treatment is applied to women's bracelets. Among other patterns produced by soldering small details on a base may be mentioned a rose pattern of minute flowers. This is common all over India, but is perhaps most perfectly done in the red stained gold ornaments of Burma. The miniature paintings of Delhi are frequently set in gold cable twist patterns as bracelets, necklets and brooches. The almost invariable feature of Delhi work is a thin shell of gold incrusted with better gold (Kundan) or with stones of some kind, and afterwards filled with hard lac. The enamel work is often spoiled by being done on gold too thin to withstand without distortion the heat of the enamel fire.

Another speciality of Delhi is the incrustation of jade, with patterns of which the stem work is in gold and the leaves and flowers in garnets, rubies, diamonds, etc. For examples of the best antique work we must now go to the great European collections, where are objects of a size and beauty now seldom met with in India. The mouth-pieces of *hookas*, the hilts of swords and daggers, the heads of walking canes, and the curious crutch-like handle of the *bairágís'* staff, also called a *bairágí*, are, with lockets, and brooches for English wear, the usual application of this costly and beautiful work. Each individual splinter of ruby or diamond may not be intrinsically worth very much, but the effect of such work as a whole is often very rich. The *murassia kár* or jewel-setter was formerly often called upon to set stones, so that they could be sewn into jewelled

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cloths. For this purpose, as when the stone was to be incrusted upon another, as with minute diamonds or pearls on large garnets, a common Delhi form, or on jade, he works with gold foil and a series of small chisel-like tools and fine agate burnishers. The open work claw setting, which leaves the underside of a stone clear, have been copied from European work. There is no dodge of the Eurpean jeweller, such as tinted foil backing for inferior stones or fitting two splints of stone to form one, that is not known to the Delhi workman. These and many other devices they have not learned from Europe, for they are tricks of the trade common to all countries. It is easy to find fault with a certain quality of flimsiness and sometimes gaudiness in the articles exhibited for sale all over the country, but now a days people will not pay a sufficient price for good work, so the demand of the day is for a cheap article. European designs are coming more and more into use. The industry in Delhi has, however, decreased to a very considerable extent during the last 15 or 20 years, and continues to decrease from year to year. The cause would seem to be partly in the practical cessation of big works, and partly in the falling off in demand from England and other place abroad. The price of stones has also greatly risen.

Silversmiths.

Turning from jewelry proper to silversmiths' work of the larger sort, not nearly so much is done now as formerly. The reason is that the Indian demand has fallen off considerably : residents of the country, both Anglo-Indian and Indian rulers, seem to prefer the plainer work of the West.

A large and bold treatment of silver is a tradition of Indian work, but it has only recently come into favour among the silversmiths of Europe and America. The artistic rough chiselled silver of Messrs. Tiffany of New York, which was reckoned a novelty, has some points in common with Indian work, especially in that it was not like most European work teased with uniform high finish. Large *huqas* chased and perforated with elaborate garniture of open work, *chilam* covers and chains with pendant fishes and other fanciful *breloques*, *ábkhoras* or drinking vessels for wealthy Muhammadans, spice boxes or *pándáns*, similar to the familiar copper *pándán*, models of cooking pots for wedding presents and occasionally for wealthy Hindus such sacrificial wares as the *Nandigan* or bull of Shiva with a canopied arrangement for dropping Ganges water on it in worship, or the *argha*, an oval patera that represents the female energy, *jháris* or water jugs, *lota*-shaped with spouts similar to those of English tea-pots, *bárdán*, small boxes for holding cotton saturated with scent, and *guldbpáshes* are the principal objects now made, but the demand steadily decreases. The *thatera* or metal chaser carries on his trade separately from the smith, who, like the blacksmith of the Siálkot and Gujrát damascened work, confines himself to forging

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and shaping. Beaten foliage like that of Cutch is wrought, and the superficial engraving of English silver plate is skilfully imitated.

No workmen are more careful than Indian gold and silversmiths in the handling of the precious metals. As they use no benches their filings cannot be preserved, as in English shops in a leather apron fitted to a drawer, but they file on a wooden standard set in a large dish, and their small crucibles for casting are most carefully handled. Yet it pays some people to buy their ashes and sweepings for the sake of such gold and silver as they may yield. These people are called *niárián* and were so numerous in former times that a small quarter of the town is called after them "Mohalla Niárián".

The jewellers' shops now show a larger assortment than ever of European patterns of bowls, tea-boxes, tea sets, match boxes, cigar and cigarette boxes, peg measures, card cases, napkin rings, umbrella handles, stick tops, mirror and brush backs, trays, spoons, mustard pots, salt and pepper-holders, candlesticks, buckles, flower vases, stamp-boxes, milk jugs, cups, saucers, penholders, etc. Practically the only things "Indian" about these articles are the raised work called "*swámi*," which is roughly imitated in Delhi and the handles of teapots, etc., which generally take the form of a snake, paper weights, in the form of elephants, camels, etc., are also made.

Mock jewelry.

Large quantities of sham jewelry made of brass, coloured glass, and plain glass with tinted foil behind it, are sold. These preserve the native forms of earrings, bracelets, and head ornaments, and are often very pretty. Year by year, however, a large number of European imitations are imported; notably large brass beads in open work rudely counterfeiting filigrain. It is not always easy to say in such things where Germany or Birmingham ends and Delhi begins, for the stamped tinsel settings are combined with wire, silk and beads in the most ingenious way, till the completed ornaments resembles those made in good materials of real native work. There is no affectation, however, about the ornaments cast in zinc for very poor people, where the workmanship, though following the forms of silver and gold, is rough and costless as the material. A considerable amount of taste is displayed in the stringing and arrangement of small coloured glass beads.

Brass and Copperware.

The coppersmiths are no less skilful than the workers in silver. In the Lahore and other copper bazars, visitors are invariably offered real Delhi *degchis*; and most of the smiths from other places admit that they are not so skilful with the hammer and stake (*sandán*) as those at Delhi. In shaping a circular vessel of changing diameter they find it necessary to solder pieces on; while a good Delhi coppersmith shapes the whole without joint from one piece. Nests (*ganj*) of *degchis*, with cleanly defined edges

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fitting closely into each other, are the usual articles made, and they are often admirable specimens of plain hammer work. Brass articles are tastefully ornamented by the *chatera* with foliage in low relief. There is a considerable production too of small fantastic toys in brass, roughly made, but often ingenious. The native merry-go-round seen at *melás* furnishes one model, and railway trains, *raths*, grotesque figures and toy vessels of all sorts are also made. Small boxes of brass with lids perforated in foliated patterns and furnished with a false lid in which a small mirror is fixed, are favourite possessions of native ladies, who use them to keep cardamoms or small articles of adornment. These are made in great numbers and find their way into Rajputana as well as all over the Punjab. The trade in brass small wares, however, is not likely to increase very largely, on account of the competition of German articles of a similar kind which are now imported in great numbers.

The local manufacturers do a good business, especially in pure hammer work, *i.e.*, the shaping of vessels from one sheet of copper without joint, the best workmen living in and about Kúcha Pati Rám. Jagan Náth's *rath* or car in Delhi is a good specimen of large and bold work executed entirely in the city, and large orders are received for cupolas and orbs for the tops of temples and mosques. Toys and ornaments of brass and copper are manufactured in large quantities in Sadar Bázár and Pahárganj and sold by the maund, but figures sell for one anna to 50 rupees per score. Large *khalsas* (*lotah*-shaped receptacles for water) are made and run to 3 feet in diameter at the top.

Tin foil.

Pannah or tin foil is made here, and tinted sometimes with coloured varnish ; it serves as gold tinsel. A surface of wood covered with this material and then painted on it foliated patterns used to be a favourite form of decoration for doors, some of which are to be found in the fine old *havelís* in the older parts of the city. German orsidue, however, is made in so many forms, and imported at so cheap a rate, that this trade is scarcely likely to survive.

Pannah work is still used for decorating toys and boxes made of papier-maché and is also a favourite material for wall decoration, especially for temporary decorations during the Diwali and Hindú weddings. Bangles made of lac are also ornamented with *pannah*.

Tin working.

Among new trades may be mentioned the growing use of native made tin ware. A great number of tin-lined packing cases are imported, and here as elsewhere they are put to use. But the Delhi tinmen seem to be more skilful than those of other regions, and among other things their tin lanterns may be specially noted for unusual neatness of make.

The trade has increased very much lately and despatch and other boxes, as well as lamps and lanterns of block tin, are made

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equal to the best Multán work. Railway platform and signal lamps are largely contracted for. The Delhi boxes made of tin in imitation of steel trunks, are in great demand and are exported in large quantities. Handpower machines are used for cutting and shaping and with proper direction and capital the trade should increase.

Delhi painting.

The miniature painting of Delhi has grown from the practice of illuminating costly M. S. books, introduced from Persia, and greatly in favour at the Mughal courts in its palmy days. The names of calligraphers of the 13th century still survive in Persia, though little remains that can be confidently attributed to them. During the 16th and 17th centuries the art, which from the manner of its growth and fostering, as well as from the costly splendour of its finest examples, has some right to be called a Royal one, flourished in India. Illuminated manuscripts are still prepared with much care and skill, but there is not now the same demand as there used to be: there is scarcely a well-known art collection that does not include some examples of illuminations prepared in the time of the Mughals.

There is no record of the introduction of the practice of painting on ivory. This was probably modern, and imitated from the miniatures which, with our grandfathers, took the place of the photograph of to-day. This is only a surmise, but it is certain that the material used in the older work was invariably fine grey paper, like that known as Cashmere paper. The "manner" of the modern Delhi miniature, excepting when it is copied from a photograh, is identical with that of the old portfolio picture or the book illumination. Water colour alone is used, and the head is drawn full front (*do chashm*), two-eyed, or in profile (*yak chashm*), one-eyed. There is, it need scarcely be remarked, no indigenous oil-painting of any kind throughout the country.

There are "Delhi painters" in Calcutta and Bombay and a large amount of work is annully sold. Pictures of the chief public buildings of Northern India are used to embellish carved ebony caskets. Others of small size are set in gold and sold as jewelry. Book and frames filled with a series of portraits of the Mughal dynasties are favourite subjects. Akbar II in *durbar* is frequently repeated, with a British officer who keeps his cocked hat on in the royal presence. The beauties of the court are also drawn, and it is noticeable that the Persian artist (those of Delhi claim Persian descent) paints the light-coloured Persian complexion and ignores the dusky hues of India. An exception is made in favour of Ranjit Singh, who is always represented as very dark. Sketches are extant which show that in former times the Delhi artists sketched from nature, but by dint of repeating the same heads over and over again, the features naturally become conventionalized and exaggerated, so that peculiarities like Alamgír's long nose and Núr Mahal's round face are at once recognisable. In the

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same way in the early days of "*Punch*," before multiplication of photographs put so many authentic studies from nature in the hands of the artist, familiar types were drawn and redrawn, until Lords Brougham, Derby and Disraeli were indicated with a very few strokes. A charateristic of all Indian work is that the craftsman learns to do one thing, and then goes on doing it for the rest of his life.

The introduction of photograpy is gradually bringing about a change in Delhi miniatures. The artists are ready to reproduce in colour any portrait that may be given to them; and, although sometimes the hardness of definition and a certain inky quality of the shadows of some photographs are intensified, much of their work in this line is admirable. The stiffness which used to be their unfailing characteristic is disappearing; landscape, a branch of art treated in indigenous art with stern conventionality, is attempted in a freer spirit, and it seems not unlikely that a new and perhaps more fresh and vital way of looking at nature may be adopted. Supposing this change to be desirable, a point that is not absolutely certain, the Delhi work of to-day is strongly marked by the faults of its qualities the excessive delicacy and minuteness of handling well expressed by their customary phase, "*ek bál qalm*," a brush of a single hair, the quality of the handling being far more esteemed than sound drawing, good colour, or truth of effect.

Photographs.

In copying photogaphs there is no such thing as freehand drawing, the photos outlines are carefully traced with ink on talc, this tracing is then retraced on the reverse side of the talc with transfer ink and transferred to a thin sheet of ivory, the features, &c., are then touched up and finally shaded and coloured. If the painting is to be larger or smaller than the original photo the latter is first enlarged or reduced by photography. As the whole work is done with water colour any part can be washed out and redone. Still it is wonderful how truthful the paintings are to the original photos and it is still more marvellous how the artist can work sitting on their hams with the palm of the left hand for an easel and a common piece of paper for the palette, with children playing about and touching the artist's materials.

The ivory used for miniatures is prepared in the city, and the mounts, said to be of Aleppo glass, are also cut, rounded and polished here.

Tanning.

Leather tanning is an industry which is increasing in Delhi, but the work is all done by hand. The principal tanneries are in Qarol Bagh, a suburb to the west of the Ridge, entirely inhabited by Khatiks and chamars. Finer sorts of tanning such as the manufacture of Russia leather and the dyeing of leather is carried on in the city.

Kuppas.

Kuppas or leather bottles, and scale pans are made of raw hides boiled and mashed, and hammered on to earthen models, the whole is then dried in the sun and the models broken and extract-

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Kuppas.

ed in pieces. Muhammadans especially carry on this industry and there is a Mohalla called "Kuppa-wálá" in Delhi. The trade however is languishing for kerosine tins largely take the place of these leather bottles for storage of *ghi*, oil, &c.

Stone-carving.

Stone carving is not very extensively practised, but there are numerous examples of modern work which show a high average of excellence. The spandrels or *mihrabs* of doorways seem to be the favourite field for the stone-carver's art. The foliage, as in all modern work, is excessively suave and flowing in line, and somewhat tiny in detail: contrasting in this respect with the simpler and more rigid lines and scantier forms of the ornament of the best periods.

This art still flourishes and excellent specimens of house entrances or porches can be seen in any part of the city, and the modern Jain Temple shows some fine work. The renovations of the old tombs, &c., in and about Delhi now being carried out by the Archæological Department has been entrusted to local workmen, and when good wages are paid, work, in no way inferior to that of Shah Jahan's time is carried out.

Plaster work.

In the open courts and larger rooms of the better class of native houses the pilasters and arcades are wrought in plaster work which, though late in design, is pretty and tasteful in execution. The notable deterioration which has taken place of late years in the *raj mistri's* craft is attributed by the workmen themselves to the introduction of the very different method of treating wall-surfaces, necessary for our large English buildings, where immense stretches of wall have to be covered with plaster as economically as possible. A skilled workman will tell you that any cooly can learn to do such work; and as a matter of fact the greater part of the men employed by the Public Works Department are only promoted labourers, and very few of them are capable of working out such details as the pendentives of vaults or the foliated pilasters and *mihrábs* of the arcades which are universal in the work of fifty years ago. Even in English bungalows built at that period, the native fancy, though evidently ill at ease in our vast, rectangular domestic barns, broke out in quaint panelling on the walls and in ornamented mantelpieces. The barrack and the railway station, however, have now effectually checked this; and the *raj mistri* has learnt how to combine the worst and least durable plaster work ever wrought in India with pure, utilitarian hideousness.

Delhi porcelain.

In spite, however, of the bad example a number of *ustads* try to keep up the name of the great masters Usta Hamid, and Usta Hira, the decorative artists of the modern Moghal period, after whom two streets near the Jama Masjid are named. Their decorative plaster work is often mistaken for the best stone, being done with cement made from marble. Foliated and geometric patterns are picked out in relief and plane surfaces are worked in patterns of different colours, which colours are not merely laid on with a brush on the surface, but worked into the substance of the plaster itself.

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Some of the *ustads* rise to figures or groups of figures in relief and also produce statues but the pose is not graceful.

Delhi porcelain.

Delhi.—Pottery as purchased and understood by Europeans, is a craft of recent origin. For many years large jars or *martabáns* for native domestic use, jars of a smaller size for the pickles and preserves which are specialities of Delhi, and small *dawáts* or ink-stands have been made in a rough sort of porcelain covered with a glaze.

However new forms have been suggested to the potters. These are mostly flower vases, *cháguls*, *suráhis*, and similar decorative shapes of Indian or Persian character. As this application of pottery is entirely new to this part of India, there are no traditions to be interfered with. Lack of enterprise and ignorance of the possibilities of the art have prevented it from being largely developed. Little has been done to meet the demand, and nothing to anticipate or stimulate it.

The ware from the fact of the "paste" being an artificial one, *i. e.*, compounded of pounded stone and gum, and not a natural clay, has to be made in moulds, and cannot be freely handled and made in great variety of form on the wheel. It is curious that so little has been done to improve the paste, as true China clay is found not far from Delhi, and is used habitually by the gold and silversmiths for their crucible.

Blue and a pale-green are the colours generally used for decoration but brown is also introduced. The patterns are poor in design and though the general air of the product is delicate and pretty, it has a somewhat sickly quality, happily, described by a connoisseur as "anæmic" when compared with the fulness of colour and richness of pattern of Multan ware.

The potters of the latter place, it may be noted, are Muhammadans, and of very different social standing from the *kumhár*. The Delhi potters are Hindus and probably of the ordinary *kumhár* or potter caste.

Besides the wares mentioned above, attempts have been made to produce tiles for flooring and wall decoration, but the business has not improved because the tiles do not lie flat but buckle up on baking.

Textile fabrics.

Turning to textile fabrics, in spite of the large importation of piece-goods from Europe, one of the visible signs of which is the busy piece-goods *bázár* of the Chandni Chauk, there is a small cotton weaving industry here, and *pagris* and *dopattas* of local make are exported. The trade however is languishing because foreign muslin is found to be cheaper, and in the winter many people have taken to wearing felt caps in place of *pagrís*.

The fine muslins which were formerly woven for the wealthy still survive. In the portraits of Mughal nobles as in illustrations of popular poetry, figures are constantly represented attired in

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muslin so transparent that the under garments show clearly through. The oft-repeated story of the Emperor who reproached his daughter for being imperfectly clad when she was swathed in many yards of fine muslin, is quoted as a proof of the skill with which Gossamer webs of cotton were produced. A market for these fine muslins has now to be sought in native states, and it is at Patiala and Nabha and in Rajputana that they are mainly disposed of. Compared with the bulk of the European importations of cotton goods, the local production, however, is but small. Some fancy dyeing, including the curious knot and stripe dyeing in which patterns are produced by tying up minute pockets of the cloth with fine thread in simple ornamental forms and then immersing in dyes of different colours, is done, and pretty effects are obtained, the spots, &c., shading off like a blot of ink on blotting paper.

Gunny bags are not made in Delhi, all are imported. "Tat" (gunny) is made in small quantities for floor cloths, but the jute mills of other towns supply all that is wanted in the way of bags.

Carpets.

Carpets made of wool and also of cotton, as well as ordinary *darís* and *newár* or tape are made in small quantities but the trade is slack and the work is inferior.

Gold and silver embroidery.

In popular estimation Delhi stands pre-eminent for its lighter and more decorative manufactures, such as jewelry and embroidery.

The embroidery in which gold and silver thread are used is commercially the more important.

Much of this is used for covering silk thread with silver or gold, the product being called white or yellow *kalábatún.* The purity of the metals used, which in former times, especially at Lahore, was the subject of stringent regulation and surveillance both on the part of Governments and the guilds of wire-drawers, is now necessarily left to the exigencies of a trade in which cheapness is yearly growing a more essential condition. A sort of assay is consequent on the voluntary fees paid by the Delhi manufacturers to the muncipality for official supervision. There is, however, now an inclination on the part of certain members of the *kandala kash* guild to dispense with the supervision excercised by the Municipal Committee, and if this disposition gains strength there will be as little guarantee of the metal used as in other places. The Municipal Committee have established a supervising station in Delhi. To this station the *beopáris* bring their raw material to be melted down, and the amount of duty payable by them depends on the quality of the ingot they intend to turn out. The scale is as follows: Gold *kandala*, Re. 1-8 per ingot of 75 *tolas*; silver *kandala*, Re. 1-4 ditto; sham gold, 8 annas per ingot of 75 *tolas*; ditto silver, 4 annas; *kandala mel* (half silver half copper) 12 annas per ingot; silver wire, three pie per *tola*. The *beopári* presents his silver and copper to be weighed, and on payment of the duty a receipt is granted to him. He then takes his metal into the station and

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melts it down in an earthen crucible, called *kathala*, in one of the numerous compartments set aside for the purpose. From the crucible he pours it into an iron mould called *reya*. The bar or ingot of silver and copper when thus melted down is called *gulli*. If it is intended to work gold leaf into it, it is about 8 inches long by $1\frac{1}{4}$ inches square. The *gulli* is then made over to the *kandala kash*.

The chief difference between wire-drawing in England and India lies after all in the lack of machinery in the latter country. A wire-drawing and lanetta factory was established at Kúcha Chelán in Delhi many years ago. The machinery was worked by steam but the business was a failure. There is, however, wonderful delicacy of hand, and skill that can only be attained by long years of practice in some of the processes. The flattening of a row of slender wires with a hammer as they are drawn over a tiny steel anvil, into minute ribbons of equal width, is one of those feats of manual dexterity, the exceeding skilfulness of which by standers; can only realise by an attempt to imitate it. Similarly nothing can look easier than the covering of thread with these minute ribbons. The thread hangs from a hook in the ceiling and is wound on an iron spindle. The workman gives the spindle a quick twirling motion by passing it rapidly under the palm of his hand over a sort of greave that covers his calf: while the thread is rapidly spinning the gilt wire is applied. The workman's hand, accompanied by a glistening streak of gold, travels rapidly upwards with no apparent effort, but it leaves the thread perfectly covered with gold evenly coiled; no silk showing and no uneven overlapping. The exceeding tenuity to which gilded silver can be drawn out and yet retain an unbroken surface of gold has been continually dwelt upon in all accounts of wire-drawing. It does not pay to draw out tinsel so fine. Silver unfortunately will bear the admixture of a considerable quantity of copper without losing colour to ordinary eyes; and Delhi *kalábatún* contains often more copper than the purchaser bargained for. The various qualities of gold thread are discriminated at a glance with perfect accuracy by experts.

Embroidery on leather for shoes has been mentioned as one of the uses to which gilt thread is put. But this is only one of many uses. As gold thread is not easily worked on the needle, it is usually laid on the surface of the cloths to be ornamented and tacked down at intervals with a stitch of silk through the fabric. To do this conveniently so that one hand is free to pass the reel on which the gilt thread is wound, while the other stitches it down, a frame is necessary; hence gold embroidery is called *karchob*, frame work. But this name seems to be used to distinguish more particularly the large embossed work familiar in State elephant *jhúls*, *masnads* and the like. The finest examples of this work must be sought for in native States and in European museums, and it is but seldom that large and important pieces are now wrought. In cases where the whole of the field is to be covered with gold

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Gold and silver.

work, a stout cotton cloth is stretched on the frame. On this the design is drawn by the *naqqásh*, and the parts to be raised are worked over with thick, soft cotton, dyed yellow, passed on the surface from a reel, and stitched down at each passing with ordinary sewing thread. The centre veins of leaves and other forms are marked with stitching, and a kind of modelled surface is thus produced in thick cotton thread. Over these forms the gold and silver thread is laid, their lines following sometimes those of the cotton underlay and sometimes going in opposite directions. For the grounds, varieties of basket-work and herring-bone stitches are adopted; spangles and lines of twisted wire *sulma* are introduced to mark and relieve the leading lines of the pattern. Several men work at once on these fabrics, and they are not so long in execution as this description may seem to indicate. The sheen of the gold threads interlaced in different directions as they cross over raised surfaces, produces a brilliant and in large pieces a splendid effect. In cases where coloured silk velvet is bordered with raised gold embroidery of this kind, the velvet is sewn on strong cotton cloth, and during the work the parts to be left plain are kept carefully covered up. In the same way caps, cushions, tea cosies and other trifles are wrought; but as relief is not always necessary as in large throne cloths, elephant housings and the like, the forms are not always emoossed in cotton.

A pretty variety of gold embroidery which has become popular is called *mina* work, because of a slight resemblance to *cloisonne* enamel. The outlines of foliage are done in gilt thread, but the leaves and flowers in brightly coloured silk. On a suitable ground this work is very charming. Table covers, panels for screens, mantel-piece borders and ornaments for brackets seem to be the favourite objects. Since the world of fashion has decreed that gold and silver embroidery, for many years considered theatrical and pretentious, is picturesque and beautiful, some excellent work has been produced for ladies dresses. The shapes of these change so quickly in the western world, however, that the Delhi artizan has scarcely completed a skirt or a dress front when it is hopelessly out of fashion and useless.

Strange forms of byegone periods are still adhered to, such as the *burnous* opera-cloak and loosely-fitting jackets with open sleeves. Borders and trimmings it is being discovered are a safer field for the exercise of the art. A very dainty sort of embrodery is worked on net, and in this case the gold thread is not passed but run through. Gold sprays are also wrought on white muslin *jamdani*, with an effect similar to that of the well known Lucknow work.

The variety of embroidered caps worked for the better classes of natives in real gold and silk, and for those of lower degree in tinsel, is beyond enumeration. Many shops are devoted exclusively to the sale of caps. Nautchwomen's dresses are often tri-

umphs of gaudy and gilded broidery. Weddings consume a large amount of finery, and on holidays and at fairs gilt lace, real or false, makes all the children gay.

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A large quantity of gold and silver thread is used by the *nechaband* in the manufacture of *hooka* snakes and pipes. This is prettily variegated with coloured silk, and no small skill and neatness are displayed in their plaiting. The *patua* or *patoti* makers work up a great deal in stringing necklaces, head ornaments and bracelets together, the ties being usually in gilt thread. In the *parandas* or queue terminations for the three long tails of hair affected by native ladies, pretty combinations of gilt thread with brightly coloured silk are produced. The *paranda* is also frequently made in embossed silver. The tassels of the *azarband*, the universally worn *pyjáma* string of silk, are frequently costly arrangements in *kálábátun*, which is also worked into a great variety of fringes for decorative purposes.

Full details of this manufacture will be found in the Monograph on the wire and tinsel industry by Mr. E. Burdon, Assistant Commissioner.

Gold lace proper is not now so much used as before the Mutiny. The machine used is an exceedingly neat contrivance, an elaborate loom in miniature, the heddle strings converging to a sort of pedal board like that of an organ on a minute scale. The great toe, which in the native foot is flexible and free in movement, picks out and depresses each heddle in turn with unerring precision.

This quadrumanous facility of grasp is of the greatest use in silk-winding, braiding, and gilt cord-making, the great toe being constantly used to hold the work.

Silk embroidery.

Silk embroidery is of several kinds. A long loose stitch in white filoselle worked in pine or other forms on grey, blue and other colours of Cashmere (English), is one of the commonest. Shawls and articles of female attire are the usual forms. The woollen fabrics of Cashmere and Amritsar are also decorated with silk embroidery. Satin of European make is coming into increased use for silk embroidery, and some of the patterns, notably one counterfeiting the markings in peacocks' feathers, are brilliant and effective. There seems to be a touch of flimsiness in most Delhi work, and this characteristic is not likely to be cured by determination of the public on one hand to pay cheap prices and of the dealer on the other to secure large profits.

Tinsel printing.

Some cotton-printing or chipiwork is done of no remarkable quality. Silver tinsel-printing on Turkey and red muslin, *salu*, is made in quantities for weddings, &c., but it is inferior to that of Kangra and Rohtak.

Carpentry.

The city affords employment to a large number of carpenters whose skill is evident from the articles made. Furniture for household use is turned out in large quantities by local *mistri*

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at the instance of the dealers only, and it is certainly curious that, with so large a demand, there is no large workshop. Painted wooden furniture, such as boys' beds, *takhts*, slates for school boys, swings, toys, are well done in Delhi, and there is a fancy goods trade in wedding outfits, which are called *sanduq daheji*.

The carriage building industry is a thriving one, but the work seems to be carried out in very squalid yards littered with the relics of decaying vehicles. A very good stamp of dog cart is made, but probably the most notable type of carriage locally made is the waggonette or the pseudo-mail-phaeton, so popular with the well-to-do Hindus—a lumbering vehicle of great vitality. Ticca gharies and ekkas too are built in considerable numbers.

Wood Carving.

Wood carving is not in any way an important industry. There are some very fine examples of old doors and doorways in the city, but fashions have changed and people are content with plainer surroundings. The only carving of importance is the carving of curíos, which usually take the form of sandal wood or ebony boxes.

Basket Making.

Another trade, which is popular in its humble way, is basket making. Tiffin baskets, work and tea-tables, chairs and other articles are now made in split bamboo with bands of coloured splints. The work is fairly neat and strong.

The trade is increasing and, if the workmen are given a pattern of chair or basket, they can imitate it very well. Cane is also used and in addition to other work bottles are now enclosed in cane or mat or wickerwork like eau-de-cologne bottles.

Common willow baskets for earthwork, fruit baskets and the covering of earthen jars with willow basket work, is also carried out in large quantities. The material used is generally tamarisk (*jháu*) obtained from the Jamná Khádar, but the date palm, (*dhák*), mulberry and *munj* fibre are used for the finer baskets.

Ivory carving.

Ivory carving is one of the well known industries which has advanced with great strides of recent years not only in Delhi but in other places: the importance of the industry was recognised in 1900 when Mr. T. P. Ellis, Assistant Commissioner, was deputed to write a monograph on the subject, a pamphlet which can be consulted for details. Indian ivory is too soft and brittle for good results, so ivory is obtained from Africa (at a cost of Rs. 25 per ℔ landed in Delhi) and is converted into curios of every conceivable pattern, which displays the skill of the carver in a more or less accentuated form. Elephants and their trappings seem to be the favourite theme, the tourist purchasers no doubt regarding the animal as specially oriental, but there seems to be nothing that cannot be portrayed, even down to small detail: for instance, a caravan of camels will be carved, the load of each is shown in detail and even the concomitant dog is being led by a fine ivory

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Arts and Manufactures.

Ivory carving.

chain. Such skill in ivory working has been attained that it is now even woven into cloth. Though ivory curios are sold in all the jewellers' shops the manufacture of them is controlled almost entirely by the firm of Fakir Chand & Co., who have a large exhibition room in the Daríbá close to the Jáma Masjid: this firm imports the ivory and hands over the requisite pieces to the workmen. It is calculated that it takes a carver five years to become really efficient: the work is very laborious; some of the detailed curios will take a man a couple of years to finish, and it is seldom that a carver will earn more than Rs. 20 per mensem. In addition to carved ivory a certain amount of plain ivory goods are exhibited for sale, but these are generally made out of the pieces left over from the more artistic work.

Panels and picture frames, chessmen, paper-knives, groups of figures and processions, models of native houses, temples, etc., and bas-reliefs of incidents in Hindu mythology are made. All the figures lack expression and pose, but of late years a few artists have paid attention to this point and probably Delhi now ranks as high as Murshidábád as regards ivory work.

Gold beating.

Ten "*mashas*" of gold or silver sheet is cut into 160 pieces and placed between 340 pieces of gold beater's skin, and the whole put into a bag of skin, the beating goes on for 12 hours before the leaves are ready, out of 160 leaves only about 150 come out whole. The gold beater earns about 6 annas a day for silver and 8 annas a day for gold leaves. A packet of 150 silver leaves is sold for Re. 1-8 and a packet of 150 gold leaves for Rs. 32-2, the cost of production being Re. 1-4 and Rs. 30, respectively. There are many persons who do this work and the trade is considerable.

Patwa.

A considerable industry is *patwa* works, *i.e.*, the production of silk and wool *kamarbands*, tassels, banners, flags, trappings for native saddles, colored cord for native beds, &c., and "Delhi *patwa*" work is considered better than that of other towns.

Dentistry.

Dentists are doing a good business in Delhi, and in their small way give a great deal of relief to persons in want of false teeth. The teeth are imported but the actual setting in moulds with rubber is done here and the rate charged is Rs. 2 per tooth. The work is not as good as that done by European dentists, but good enough to suit the poor people who cannot afford better.

Scent.

A small quantity of *ittar* or scent is made in Delhi, but the trade is not brisk.

Ink.

Ink used for vernacular writing is made in large quantities and is exported, two kinds being made, *phal* and *tekiar*, the former is the better and is made of *kajal* mixed with gum. Straws are coated with the mixture and dried in the sun: when dry the ink comes off in little cylinders and is ready for the market.

Blue-black ink powder, as well as liquid blue-black ink, is also made in large quantites and exported; the quality is good, and some prefer it to the English manufactured article.

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Preserves.

Delhi pickles, chutnies, preserves, jelly, and *sharbat* are in good demand, and there is a brisk trade done in these manufactures, and also in crystalized fruit. The best makers are Muhammadans, who live and do business in Egerton Street and Kucha Nalwán.

Delhi *petah-kí-míthái* and *halwá* are celebrated, are also as *nukal* or comfits.

Talc.

Bhodal or talc work is an industry which still gives employment to hundreds of people who make fancy pankahs, banners and flags for weddings, head-dresses for bridegrooms, Moharram *tazias*, and Chinese lanterns, &c.

Embroidered shoes.

Connected with the gold and silver wire trade is the considerable trade in embroidered shoes for which Delhi has long been celebrated. The variety of patterns and shapes is remarkable, even in a country where phantasy runs riot. Nothing could be prettier or more dainty than some of the slippers, (*zenána júti*) made for native ladies' wear; embroidered with seed pearls usually false, with spangles and every variety of gold and silver thread; and inlaid with red, black or emerald green leather in decorative patterns. Gilded and silvered leather are also used. Sometimes gold and silver embroidery is worked on cloth over a basis of leather. Men's shoes are often no less elaborate.

English forms are creeping into use. No sumptuary regulation to restrain extravagance in gilded shoes and enforce the use of plain black leather could be half so potent, as the unwritten ordinance which permit, an Oriental to retain a pair of patent leather boots on stockinged feet, and requires him to doff shoes of native make when in presence of an English superior.

Seal-engraving.

Seal-engraving is an art which, owing, probably, to the unusual skill of two generations of engravers who worked in the Daríbá, is considered to be a speciality of Delhi.

It is very curious that races which excel in minute work requiring patience should have made no farther advance in this art.

Beautiful specimens are turned out to order, but the best work is done only in Arabic or Persian character, the flowing lines of which give great opportunities of pretty work. No engraver in Delhi can do English or Nagri character properly, the letters are made unequal in size and the spacing and formation are faulty. Rubber stamps are supplanting the old and artistic seals, and in a few years it may be impossible to get any good seal engraving done in Delhi, for already one of the best engravers is reduced to earning his living by manufacturing rubber stamps.

Paper.

Paper of the usual fibrous and rough quality is made in the city, and finds ready sale, as it is good of its kind. The large paper mills in other towns are killing the local industry, but a few persons still make a living by the manufacture of handmade paper, which is the favorite stuff for native bahis or cash book.

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In unglazed earthern pottery, there is not much to note. At fair times Delhi produces perhaps a larger variety than is seen elsewhere of those grotesque toys and figurines, which periodically call forth the invention of the potter and notably add to his income. Here, indeed, as the city is regarded as a place of pleasure, their sale goes on all the year round.

The modelling and colouring is really very wonderful: for a few pice can be obtained models of birds, animals, snakes, etc., painted to the very life: figures of men and women, on the other hand, are generally rather stiff and crude.

United Provinces of Agra and Oudh.

This toy trade, popular all over India, is the root from which the remarkable figure modelling of the United Provinces has grown.

Lac bangle.

Lac bangles incrusted with spangles in stamped orsidue and with beads are made in large numbers. Some are coated with tin, ground and applied as a paint and then covered with a tinted varnish, a method of obtaining a metallic glimmer through colour which is characteristic of many Indian forms of decoration.

The business is flourishing and Muhammadan women are very clever in making lac bangles, the business is carried on principally in the Lálkúa Bázár and one locality called the "*Chúríwálás*," *i.e.*, bangle-makers.

Lac is also coated on bed legs, walking sticks, &c., the articles are coated while being turned on a lathe.

Kumkumas are made: these are hollow balls of lac, blown like a glass globe and are used during Holi at weddings. They are filled with *gulal* (the red stuff used during Holi) and thrown about like confetti.

Mirrors, &c.

Imported plate and common glass are silvered in the old style with mercury and tin foil, and the edges are often bevelled and cut by the workmen with the aid of corundum powder. Very little, if any, silvering is done now, for glass mirrors can be imported cheaper and of better quality. Many of these looking glasses are mounted in a gaudy style with borders of painted glass, and an arrangement by which they stand at an angle or fold flat. Glass bangles are made and are ornamented with glass "gems" and enamel work. Small inset boxes are made of wood and covered with thin glaze mirrors, and these mirrors are afterwards painted with geometrical and floral designs with a very pretty effect. Rich natives have the walls and ceilings of their houses set with mirrors and call the room so decorated Shísh Mahal.

Fibrous manufacture.

Rope and string are made chiefly of *munj* from Rewari and *san* grown locally. The product is exported largely to Meerut and Baghpat. Fans are made chiefly by the Qassál caste, from the date on dwarf palm. There are two factories, one at the Turkoman Gate and the other at Pahari Dhíraj—which are open for four months during the hot weather. The wages earned are from

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1 to 4 annas a day. All fans are hand-made; the palm leaf is soaked in water for a short time, then some of the leaflets at either end of the stalk are removed and plaited with those remaining on the stem. The fans are often coloured in neat designs; their price ranges from 6 pies to 4 annas.

Factories.

During the past twenty years there has been a considerable increase in both the number and quality of the factories: before 1890 there was hardly an institution to which the term could be justly applied as the majority were small affairs managed and owned by enterprising individuals. It was at the end of the eighties that the improvement began: the advantages of co-operation were realised and Companies were formed. The lives of some Companies, as was only to be expected from the inexperience of the managements, were very short, but through the experience gained and the survival of the fittest the suburbs are studded with numerous factories, whose tall chimneys give an aspect to the scene which is very foreign to indigenous India.

Cotton Mills.

There are 4 Cotton Spinning and Weaving Mills in Delhi.

(1) The Delhi Cloth and General Mills Company, Limited, was first started in 1889 with a share capital of 7 lakhs. It has 177 looms, and 20,456 spindles, the number of labourers employed is about 750.

(2). The Krishna Mills Company, Limited, was started in 189[illegible] with a capital of 7 lakhs. It has 22,968 spindles, but no looms. The average number of men employed is 520.

(3). The Hanooman and Mahadeo Spinning and Weaving Mills were started by the late Mr. Wilson as a limited concern in the nineties, but after liquidation passed into the hands of Rai Bahadur Seth Kanhia Lal who purchased the concern for 6½ lakhs. There are 200 looms and 15,936 spindles. The number of men employed is 440.

(4). The Jumna Mills Company owned by Saran & Company, Limited, was started in 1903 with a capital of 5 lakhs and has 15,000 spindles, the daily number of labourers employed being 370.

All these Mills turn out coarse yarn or cloth to the value of about 40 lakhs of rupees: the cloth is mostly sold in the neighbouring districts of the Punjab, in Rajputana and in the United Provinces.

There are two Cotton Presses, (*viz.* the Jamna Ginning and Pressing Co., and the West Patent Press) and three Ginning Factories in Delhi City, which employ about 200 labourers in all. There is also a Ginning Factory and Press at both Sonepat and Ballabgarh.

Flour Mills.

There are four big Flour Mills: (1) Ganesh Flour Mills Co., Ltd., (2) Delhi and Northern India Flour Mills Co., Ltd., (3) Diamond Jubilee Flour Mills, Ltd., and (4) John's Flour Mills.

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Flour Mills.

They produce flour, bran and *sují* to the value of about 50 lakhs, which are sold mostly in Rajputana, Punjab, United Provinces and Bengal. The number of men employed by these Flour Mills is about 300 in all.

Miscellaneous Factories.

There are two Biscuit Factories, namely :—

(1). The Hindu Biscuit Factory, and

(2). Sharma Hindu Biscuit Factory.

The first-named has a European Baker. They turn out Biscuits, loaves, cakes, etc., in large quantities, which are in demand throughout the country. There are also several Iron Workshops worked by steam which turn out Sugarcane presses, mouldings, railings, fittings, etc., to the value of about 10 lakhs.

There are 4 Ice Factories, the oldest of which is the Hindu Ice Factory. The annual outturn of ice is about 2 lakhs in value. There is an Oil and Soap Mills Company, the principal business of which is to manufacture rape-seed oil.

There is a branch of Meakin & Co.'s Brewery, but brewing is not carried out, only malting. The number of men employed in the above factories is about 50.

Owing to the growth of factories the labourers have come in large numbers from neighbouring districts and the Mill operatives have been imported from Cawnpore and other places with the result that Teliwara, Sabzimandi and other suburbs of Delhi show a large increase in population. The average earnings of labourers is Re. 0-8-0 per diem or Rs. 15 per mensem and their material condition has much improved; in fact they are much better off than clerks and others who, being in a higher social scale, have greater expenses.

Section F.—Commerce and trade.

Commerce and Trade.

The city of Delhi takes the first place as a commercial town perhaps in all Upper India, competing with Cawnpore and Amritsar and ranking next only to the sea-port towns, Calcutta, Bombay and Karachi. It is a great distributing centre operating within a wide radius. There is through communication with the above-mentioned parts, which are about equally distant, and Delhi is the junction of all the large railways in Northern India: here are as many as three alternative routes to Bombay. Her central position with such excellent communications and to a small extent, her historical pre-eminence have given to Delhi her modern commercial impetus, which is seen not only in the large business done in importing and distributing commodities wholesale, but in the number of Factories and Mills which have sprung up. Delhi is, moreover, the exchange, financing and clearing house of the Punjab and of a lrge part of Upper India and Rajputana; her exchange operations draw Rajputana towards her, the Márwáris of that province, associated as they are with the business houses

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Commerce and trade.

at Bombay and Calcutta, all looking towards and dealing with Delhi. The banks located in the city include such well known Banks as the Bank of Bengal, the National Bank of India, the Allahabad Bank, the Delhi and London Bank, the Bank of Upper India, the Alliance Bank of Simla, and the Punjab Bank; the Punjab National Bank, the People's Bank, the Marwar Bank, the Union Bank, and one or two others are the minor banks under Indian management and there are in addition many private bankers whose names need not be recounted. The chief banks have their offices in Chandni Chauk, which is the great centre of business. European goods, such as piece-goods and sundries, which are received direct from Europe, are cleared by these banks who, by advancing money against drafts, enable the dealers to carry on.

Of recent years the commercial business of the city has increased to such an extent that the Punjab Chamber of Commerce has been instituted with its head-quarters in Delhi; its members are business men residing in the Punjab and Kashmir. The importance of the Chamber can be gauged from the facts that a European paid secretary is entertained and that it has been allotted one seat in the Provincial Legislative Council.

There is also a Trades Association organised by the leading retail traders with a view to furthering their interests: the Secretary of the Chamber of Commerce acts in the same capacity for the Association.

The principal articles of merchandise which are imported into the city and eventually mainly exported are:—

Piece-Goods, Woolen and Silk Goods etc., are imported in vast quantities from Manchester, Germany, France and Japan to an extent which is estimated to exceed 4 crores of rupees. There are several offices of European firms and Indian Commisson Agents who receive orders from the dealers and arrange for shipments from Europe. The goods are in the first instance received by the wholesale dealers who (about 250 in number) occupy the cloth markets called *Katras* in Chandni Chauk: these men are chiefly Marwaris. There are about 100 Commission Agents called *Aartiyas* who send out goods to cloth merchants in the Punjab, United Provinces and Rajputana, especially to the centres at Amritsar, Cawnpur, and Ajmere. There are in the city about 200 shops for the retail sale of cloth Sundries or Bisat Khana.

These include umbrellas, English shoes, hosiery, *churis* (bangles), stationary, crockery, oilman's stores, soaps, provisions, cigarettes, felt caps, laces, lamps, lanterns, steel trunks and other fancy goods. The wholesale merchants, who are mostly Punjabi Muhammadans, have made the Sadr Bazar their place of business. Goods are sent out to all over Northern India and the turnover is estimated to be about 5 crores of rupees.

Groceries (*Kirana*), which include dried fruits, turmeric, spices, beans, almonds, palms, cocoanut, betelnut, etc., are received to the

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value of about 50 lakhs of rupees from Kabul, Baluchistan, Bombay, Singapur, Madras, etc. The wholesale merchants have their shops in Khari Baoli market. As these goods are not free from octroi the merchants store them in Shahdara across the Jamna, which is outside the Municipal limits; it is a pity that there is no bonded warehouse in Delhi for their convenience.

Of Gold lace, Gota, and Embroidery, the total sales are estimated at 25 lakhs of rupees. The business is carried on in the Chandni Chauk and Dariba. The genuine gold lace is being gradually replaced by cheap imitation goods imported from Germany and, as, moreover, Delhi is in competition with Agra, Patiala and Amritsar, the trade in local *gota* has declined of late.

Wheat, Barley, Gram, Pulses, etc., are imported from the neighbouring districts of the Punjab and United Provinces to the value of about 50 lakhs of rupees: what is not consumed locally is exported to Bombay.

The grain business is confined to the *Khári báoli bazar,* which is conveniently situated near the goods stations of the railway lines. Imports of grain have fallen off of recent years owing to the railway extensions allowing direct despatch to Bombay. The wheat comes from the local canal tracts and is mostly exported again: so, too. with barley. Rice is obtained for local consumption only from places like Nawabganj, Amritsar, Multan, Pilibhit, etc. Mustard seed grown locally is re-exported to Calcutta and Bombay, but linseed, which is brought in from the United Provinces, is not exported.

Metal Goods—Such as corrugated iron sheets, girders, fittings, bars, brass and copper sheets, etc., are imported from Karachi and Bombay to the value of about 25 lakhs, the chief market being in Chaori Bazar.

There is also a good trade in sugarcane presses (*kolhu*) which are made locally and sent out to the villages either for sale or on hire.

In Brass and Copper utensils, which are either made here or imported from Riwárí, Morádábád and Pánípat, etc., there is a turnover of 10 lakhs of rupees.

Hides are obtained from all over the Punjab to the value of about 10 lakhs and are exported to Cawnpur or out of the country.

Paper is both imported from Europe or obtained from paper mills in India. Native account books called *bahis* are made up and sold. The turnover is estimated at 10 lakhs.

Silver to the value of one crore and gold to the value of about 50 lakhs is imported from Bombay: some is re-exported to smaller markets, but the greater part is made up into ornaments and curios.

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For the sale of *Jewelry, Precious Stones, and Indian Curiosities, such as Ivory work, embroidery, Shawls, and Silver ware,* there are several big shops in Chándní Chauk and Daríbá. Such articles are sold chiefly to European tourists or sent to hill stations and Native States for disposal. The sales must be seldom less than 10 lakhs.

Timber is imported from Nepal, Kashipur, and the Simla Hills: stone slabs are imported from Agra and Bhartpur. The total value of this trade is estimated at 15 lakhs of rupees.

Among the less important articles of commerce are *ghi,* sugar, tobacco, country-made shoes, turbans, and pickles and preserves. Of the last-named the turnover is only about 3 lakhs, but the trade in each of the others is said to amount to 5 lakhs. *Ghi, gur* and tobacco are obtained locally and are seldom exported. Country sugar from Shájahánpúr, European sugar from the ports, and sugar candy from Amritsar or Agra are obtained for purely local consumption.

The district, apart from the city, has no trade of any great note being eclipsed entirely by the lustre of its capital. Agricultural produce, however, is exported direct to various markets. From Sonepat both *chillies* and *gur* are sent direct to Calcutta. From the canal region wheat and cotton are sent direct to Bombay, the Ballabgarh cotton fetching high prices in the market. The district is studded with small marts in which the surplus produce of the locality is collected and from which the *zamindárs* obtain their necessaries such as clothes, salt, and implements. The principal markets after the tahsíl villages are Murthal, Kheorah in the Sonepat Tahsíl, Narela, Buwárá and Najafgarh in the Delhi Tahsíl, Mahrauli and Farídábád in the Ballabgarh Tahsíl.

Section G.—Means of Communication.

Communications.

Communication.	Miles.
Railways	109
Metalled Roads	127
Unmetalled Roads (about) ...	300
Navigable Canals	68
Rivers	72

The figures in the margin show the communication according to the most recent returns.

It is clear that the district is unusually well provided with communication of all kinds.

Railways.

Delhi Station is the largest junction in Northern India as in it no less than six railway companies have joint rights. The East Indian Railway crosses by the Jamná Bridge from Gháziábád and is continued (since 1891) as the Delhi-Umbala-Kalka Railway via Karnal and Amballa up to Kalka, but that part of the line is leased to the East Indian Railway for purposes of management. The Oudh and Rohilkhand Railway runs into the station, but has no further interest in the district. The Southern Punjab Railway

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Means of Communication.

(managed by the N.-W. State Railway) was opened in 1897 and connects with Rohtak, Jínd, Bhatinda, Bahawalpúr and Lahore. The Rajputána-Malwa Railway, a narrow guage line, runs due south via Alwar and Jaipur to Ahmadabad. Finally, the A gra-Delhi Chord Railway Branch of the Great Indian Peninsula Railway, opened in 1904, joins the district from the south passing through the Ballabgarh Tahsíl. Though Delhi is the main station for passengers, the different railways have smaller stations in the suburbs at which the goods traffic is conducted.

The following statement gives all the information required :—

Name of Railway.	Name of stations in the district with distance in miles from Delhi in brackets.	Total number of miles in district.
Delhi-Umballa-Kalka Railway.	Sabzímandi (2), Bádlí (9), Narela (17), Sonepat (27) and Ganaur (37).	44
Southern Punjab Railway.	Panjábí Sarái (2) and Nangloí (10) ...	18
Rajputana-Malwa State Railway.	Sarái Rohilla Khán (3), Pálam (10) ...	16
Great Indian Peninsula Railway.	Delhi Sadr (1), Nizám-ud-din (5), Kilokrí (6), Okhla (8), Tughlakábád (12), Farídábád (18) and Ballabgarh (23).	30
East Indian Railway and Oudh and Rohilkhand Railway.	Delhi Terminus only	1

Metalled Roads.

With the exception of a few cross roads, the metalled roads of the district are roughly parallel with the four traversing railways, having, indeed, defined the routes for their construction. The principal roads with their mileage in the district are :—

1. The Grand Trunk Road from Delhi towards Karnal (38).
2. The Delhi-Rohtak Road (16).
3. The Delhi-Gurgáon Road (18).
4. The Delhi-Agra Road (32).

Metalled cross roads connect Safdar Jang with Humáyún's Tomb and Mahrauli with Tughlakábád Station : the Sonepat Kharkauda (Rohtak) road has just been metalled.

Rest-Houses (Table 29, Part B).

The table and map show that the district is literally studded with rest-houses. One dák bungalow is open at Mahrauli for the convenience of tourists and sight seers, and all the other houses, numbering 36, are in the charge of various State departments, being intended primarily for the use of officials on tour.

Unmetalled Roads.

Unmetalled roads are legion radiating from all the more important marts such as Sonepat, Buwána, Najafgarh, Mahrauli and Ballabgarh. They are maintained after a perfunctory fashion by the District Board. The canal banks provide unmetalled roads also, but on these carts are not allowed to travel.

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Navigable Canals.

Both canals are navigable throughout their courses but the branch of the Western Jamna Canal is empty of water for two-thirds of the year whilst the other branches are being served. A sufficiency of locks is provided. The only traffic is that of the departmental barges which are used for the transport of fuel, timber and stone.

Navigable Rivers.

The Jamná is navigable along the whole course, except where the Okhla weir prevents passage. There is very little traffic indeed, though barges laden with brushwood occasionally come into Delhi. The river is crossable at Delhi itself by the roadway under the line of rails on the bridge, a bridge of boats at Bághpat, and by the Okhla weir (foot passengers only). During the cold weather the river is fordable almost anywhere, but at other seasons people have to cross by the ferries which are located at Dahisra, Burári, Wazirabád, Okhla, Jaitpùr, Kuaoli Mahábatpur, Majháoli, Sháhjahánpur and Chhánsa. The schedule of ferry charges is as follows:—

SCHEDULE.

	Rs.	a	p.
On every four-wheeled carriage ...	2	0	0
On every two-wheeled carriage ...	1	0	0
On every ekka	0	4	0
On every hackery on spring ...	0	2	0
On every cart and hackery not on springs drawn by 8 bullocks, buffaloes, horses, ponies, asses, or mules, if laden	1	0	0
Ditto, if not laden ...	0	8	0
On every cart and hackery drawn by 6 bullocks, buffaloes, horses, ponies, asses, or mules, if laden	0	12	0
Ditto, if not laden ...	0	6	0
On every cart or hackery drawn by 4 bullocks, buffaloes, horses, ponies, asses or mules, if laden ...	0	8	0
Ditto, if not laden ...	0	4	0
On every cart or hackery drawn by 2 bullocks, buffaloes, horses, ponies, asses, or mules, if laden	0	4	0
Ditto, if not laden ...	0	2	0
Buffaloes or bullocks, per head, if laden	0	1	0
Ditto, if not laden ...	0	0	6
On every elephant	1	8	0
On every Camel, if laden ...	0	4	0
On every Camel, if not laden	0	2	0
Ditto horse, if laden or ridden	0	1	0
Ditto „ unladen or led	0	0	6
Ditto tatto or mule, if laden or ridden	0	0	9
Ditto „ unladen or led	0	0	6
Ditto ass, if laden or ridden	0	0	6
Ditto „ unladen or led	0	0	3
Ditto sheep, or goat or pig	0	0	1
Ditto palankeen dooly, palna, or tamjham with 8 bearers	1	0	0
Ditto with 6 bearers	0	12	0
Ditto with 4 bearers	0	8	0
Ditto with 2 bearers	0	4	0
Ditto foot passenger	0	0	3
Bahlee and Ruth with two bullocks or horses	0	4	0
Bullock train with four wheels, if laden	0	8	0
Ditto, if not laden	0	4	0
Ditto with 2 wheels, if laden	0	4	0
Ditto, if not laden	0	2	0

N. B.—Animals drawing any vehicle for which Toll can be demanded are not to be also charged with Toll.

CHAP. II. G.

Means of Communication.

Ferry charges.

The ferries are under the management of the District Board which pays to Government a lump sum of Rs. 4,500 per annum. The additional incidental costs of management amount to Rs. 772 per annum. As the annual income from the ferries leased comes to only Rs. 4,995 on an average the District Board funds have lately suffered to the extent of Rs. 277 per annum.

Telegraph.

The Telegraph arrangements are under the control of the Superintendent of the Ambala Division. The Delhi Telegraph Office is in the charge of a Deputy Superintendent, who has under him four Telegraph Masters, including one who is in charge of a training class. As salaries vary according to standing in the service, the Quarterly Civil List gives full information. In Delhi itself are nine Local Telegraph offices (apart from the head office) located in the following places :—

Cavalry Lines; Chándni Chauk; Cháori Bázár; Daribá; Daryáganj; Katra Baryán; Maiden's Hotel; Sadr Bázár; and Sabzi Mandi.

In the rural district are only two Telegraph offices, *i.e.*, at Sonepat and Ballabgarh: one was opened for a short time at Mahrauli, but was closed for want of custom. All the railways have telegraph lines, so the different railway stations furnish considerable telegraphic convenience. The Irrigation Department too have private lines connecting the rest-houses along the canals, the use of which, however, is confined to Departmental officers.

Post Offices (Table 31, Part B.)

A Superintendent of Post Offices, who is immediately responsible to the Post-Master General of the Punjab, is in charge of the postal arrangements. He has under him three Post Masters. In Delhi itself there are as many as 21 offices: in the rural district are 29. In addition, pillar boxes have been erected in many of the villages where there are schools, which are cleared every few days by peripatetic postmen who also deliver letters in the course of their tours. The postal facilities are adequate in every respect. Table 32, Part B, shows the numbers of letters, parcels, etc., which have passed through the Delhi Head Office during recent years: from the statistics it is clear that the postal work is rapidly increasing and the exceptional returns of the Durbar years (1902-03) is very marked.

Section H.—Famine.

Early Famines.

The history of famine in Delhi goes back to the time of Muhammad Tughlaq whose savage extravagance brought on the famine of 1344, wherein (it is said) men ate each other. The Sultán strove to restore cultivation and dug wells, but the people could do nothing. Another terrible famine occurred in 1552 in the reign of Adil Sháh when, in the days when Hemu was blockading Bhiana, God's people were crying for bread and taking each other's lives, whereas the elephants of Hemu's army (500 in number) were being fed solely upon rice and oil and sugar. Sháh

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Famine.

Jehán saw two years of drought in 1629 and 1630 and this induced the scarcity of the following year. Aurangzeb's reign had the famine of 1661 in which, in spite of the personal exertions of the emperor, multitudes perished and at least as many at Delhi as in other places.

There was a famine in 1739 under Muhammad Sháh shortly after the invasion of Nádir Sháh, and another in 1770; in 1783-84 came the terrible *chálísa* famine. There were famines in 1803-04, 1813-14 and 1819.

In 1825-26, it is said, there was great drought in Delhi, and out of a revenue demand of Rs. 28,72,272 the balances were Rs. 10,59,212. In the northern division of the territory a whole year's revenue was remitted, and in the western division there was considerable distress. Suffering again occurred in 1832-33, while in 1837-38 bread riots came into fashion, and unlimited relief was ordered for those who would work. This trouble was put an end to by rain in February 1838.

Recent Famines, 1860-1896.

Coming to recent times, the famine of 1860-61 was a severe one. Measures were at once taken for relief by opening earthworks, and gratuitous relief was given on a very large scale all over the district: the Delhi Committee expended a sum of Rs. 2,73,633, so the distress must have been very acute. The famine of 1868-69 was due to the failure of the rains in 1868, and works were provided under the Public Works Department. Relief operations were inaugurated in September 1869, and altogether Rs. 14,000 expended, of which Rs. 9,000 represented private subscription. Relief Works at Delhi failed to fill, but kitchens at Delhi, Sonepat, Faridabad and Ballabgarh attracted some 3,000 persons, mostly from Rajputana.

1897-1901.

In 1896-97 there was considerable distress due to the failure of the monsoon and the subsequent winter rains. In December 1896 wheat and *bajra* had reached the high prices of $7\frac{3}{4}$ and $8\frac{1}{2}$ seers per rupee, respectively, and by February 1897, in addition to 6,000 people employed on stone-breaking near Delhi, over 3,000 were on famine works and about 4,000 were recipients of food at kitchens.

The early cessation of the monsoon rains in July 1899 and the subsequent failure of the winter rains led to a certain amount of distress. The rainfall from April 1899 to March 1900 was 13·35 inches only, and the tract affected was the southern half of the district chiefly in the Kohi and Dabar *chaks*. The *kamins* were the chief sufferers.

Although there was considerable distress in the northern or irrigated half of the district, there was not actual famine and the people did not resort to the main work provided. The adjoining districts of the United Provinces which were not in difficulties absorbed many refugees from Delhi. A certain number of the lower classes took up stone-breaking contracts near the city and

zamindârs plied their carts in carrying stones to and from Delhi, while cattle were transported across the Jamna to the United Provinces. The price of wheat never rose above nine seers.

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Nature of works utilised for relief, etc.

Relief works were started by the Delhi Municipality in October 1899 owing to the influx of imigrants from Native States and Rajputana, who were wandering about the locality in large numbers. The first work, (stone-breaking) opened, lasted for a month after which the labourers (1,000) were transferred to the Delhi-Agra Railway work: subsequently some earthwork was undertaken at the Municipal Pumping Station. These were the only two works undertaken by the Committee during the period of famine, but gratuitous relief and food in kitchens were also given to a daily average of 300 people. The total cost of the first work was Rs. 4,476 and 77 per cent. of the persons employed belonged to Native States. The second work remained open for three weeks and provided a daily average of 480 persons with work. No works were undertaken by the District Board in connection with the famine, none being required.

Other Work.

In addition to the works undertaken by the Municipal Committee a large number of persons were employed on breaking-stone ballast for the Ghaziabad-Moradabad Railway. This work lasted for seven months till February 1900, the average number employed daily being about 1,500. The principal work opened in the rural district was the earthwork for the Delhi-Agra Chord Railway which was begun as a famine work in the summer of 1897 when scarcity had become acute, and was resumed in November 1899. The work was not freely resorted to by the *zamindars* of the district and the total number of local labourers never exceeded 700: many moved across the river and those who remained found employment in the open labour market so the work employed chiefly wanderers from Native States and a detachment from Rohtak.

Poor-houses.

A poor-house and kitchen were opened for a month by the Delhi Municipality in connection with the relief work at Bara Hindu Rao's: the cost of which relief works amounted to Rs. 1,540 and Rs. 425 respectively.

A poor-house was opened by the District Board at Badarpur in February 1900, and was closed at the end of August. Its upkeep cost Rs. 3,841 and it was established merely to clear the streets of Delhi city of beggars who were drafted away from time to time in batches. The total relieved amounted to 2,631 persons belonging principally to the Native States and to the Rohtak, Hissar and Gurgaon Districts.

Miscellaneous forms of relief.

A sum of over Rs. 10,000 was collected from merchants and traders in the city, which was spent independently in many useful ways by a Committee known as the Emergency Relief Committee. In addition to this relief a large number of native gentlemen of the city distributed food daily to the poor and private

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individuals, also collected subscriptions for the same purpose. The amount of private charity given cannot be ascertained with any accuracy, but it was considerable. Gratuitous relief was given to a number of poor women in the Delhi city who were in great want and who from the fact of their being *parda nashín* were unable to seek relief in the poor houses or on district works. To them relief was given in the form of a free ration of grain to those unable to work, and by providing paid labour for the efficient. Two houses were rented in different parts of the city from which grain was distributed weekly: recipients of relief were visited in their homes by ladies of the Zanana Missions who kindly undertook the business of distribution and whose visits disclosed that the destitution was real and acute. For five months an average of 556 persons received this form of relief daily.

Expenditure.

For the earthwork done on the Delhi-Agra Chord Railway in the Delhi District the amount paid in wages amounted to Rs. 40,694. This amount does not include sums spent on dressing the embankment, nor on gratuitous relief or contingencies.

The total net cost incurred by the Delhi Municipality on the two works undertaken by them and on the poor-house and kitchen amounted to Rs. 5,699 and the total cost incurred by the District Board on the poor-house opened at Badarpur amounted to Rs. 3,481. This latter expenditure included the cost of sending home 324 persons on the poor-house being closed, and also the cost of medicines used in the poor-house.

Suspensions of Revenue.

Suspensions as below were granted in the Delhi and Ballabgarh Tahsils:—

(1). In Delhi Tahsil Rs. 78,506 were suspended during the year 1899-1900. Balances outstanding on account of previous years amounted to Rs. 72,665 giving a total outstanding balance of Rs. 1,51,171 (58 per cent. of the annual demand).

(2). In Ballabgarh Tahsil the previous suspensions amounted to Rs. 37,615; during the year Rs. 1,31,072 in addition were suspended giving a total of Rs. 1,68,688 (83 per cent. of the annual demand).

In his printed evidence given before the Irrigation Commission, the Deputy Commissioner observed:—

"The District does not readily become involved in real famine, though owing to its geographical position it is liable to uncertainties of climate which are accompanied by seasons of acute scarcity.

The saving factors are—

(1). That a considerable area, 40 per cent, is classed as secure.

(2). There is a large city in the centre where there is always a demand for labour and the lower classes can consequently earn wages in times of distress.

(3). A river is within reach of all parts and grazing is availabe for cattle except in times of exceptional scarcity.

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(4). It is bounded on the east by fertile Districts of the United Provinces, and unless these are also afflicted there is migration to them from Delhi. The residents of many villages have relatives and fellow-tribesmen across the water who can help them in various ways and invariably do so.

No great extensions of irrigation are possible, and the two needs of the District are the re-afforesting of Western Ballabgarh and advances for the construction of wells."

1901 on wards.

Since 1901 no positive measures of relief have been required, but after bad harvest, notably during the year 1907-08, the rural population have received liberal suspensions of revenue which have sufficed to carry them through to better times. These prompt measures have doubtless saved the State from the wild and profuse expenditure which a recognised famine entails. The liberality of the measures is sufficiently indicated by the fact that at the introduction of the new assessments in 1909-10, outstanding revenue to the extent of Rs. 1,65,000 has been finally remitted and further the remarks of the Deputy Commissioner quoted above have been justified by the fact that the people have been able to weather such a bad year as 1907-08 without recourse to any active relief.

CHAPTER III—ADMINISTRATIVE.

Section A.—Administrative Division.

CHAP. III, A.

Administrative. Division.

Head Quarters and tahsils.

Delhi is the Head quarter District of the Delhi Division. The Executive staff consists of one Deputy Commissioner and about eight Assistants and Extra Assistant Commissioners, of whom one is Treasury Officer, one is a special Revenue Assistant and one is Secretary of the Municipal Committee: the remainder are Magistrates and Munsiffs.

There are three tahsils at Sonepat, Delhi, Ballabgarh respectively, each in charge of a Tahsildar assisted by a Naib-Tahsildar. The subordinate revenue staff in the different tahsils is shown in the margin and in Delhi itself are located a Sadr Kanungo and his assistant.

Tahsil.	Office Kanungo.	Kanungo.	Patwaris.	Naib-Patwaris.
Sonepat ...	1	5	93	5
Delhi	1	4	72	4
Ballabgarh ...	1	3	60	3

Zaildars.

The *zaildárí* system which was established in 1880 has just undergone a thorough revision: there were originally 44 zaildárs who received as *inàms* one per cent. of the land revenue of their zails, but now the number of zails has been reduced to 27 and the zaildars have been graded for purposes of *inàms* in the manner shown below:—

Grade.	*Number of Zaildárs.*	*Inám of grade.*
1st	7	350
2nd	14	300
3rd	6	250

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—
Administrative Division.

The following statement gives all the information about the zails which can be of any use—

1	2	3	4	5	6	7
Tahsil.	Thana.	Zail.	Number of villages in the Zail.	Area cultivated.	Land Revenue demand.	Leading Caste.
SONEPAT ...	Larsauli ...	Sardhana ...	25	23,658	52,025	Jats and Brahmans.
	Do. ...	Juan ...	22	21,622	49,000	Do.
	Do. ...	Ganaur ...	26	21,659	53,200	Tagas.
	Do. ...	Larsauli ...	20	1,112	42,550	Jats.
	Sonepat ...	Kheora ...	23	16,532	43,450	Jats.
	Do. ...	Sonepat ...	24	15,667	35,045	Jats and Sayads.
	Do. ...	Bhalgáon ...	21	23,234	50,770	Jats.
	Rai ...	Rohat ...	34	29,990	72,030	Jats.
	Do. ...	Rai ...	25	17,100	39,475	Jats.
	Do. ...	Jakhali ...	21	15,401	39,675	Chohans.
		Total ...	...	...	477,220	
DELHI ...	Alipur ...	Alipur ...	37	18,671	38,032	Jats.
	Do. ...	Bawana ...	31	28,614	64,500	Jats.
	Nangloi ..	Kanjhaola ...	21	22,056	41,800	Jats.
	Do. ...	Nangloijat ...	22	16,286	28,250	Jats.
	Do. ...	Badli ...	22	13,873	26,391	Ahirs.
	Delhi ...	Delhi ...	36	16,791	55,212	Miscellaneous.
	Najafgarh ...	Palam ...	37	23,635	31,775	Jats and Ahirs.
	Do. ...	Najafgarh ...	34	26,047	34,326	Jats.
	Do. ...	Isapur ...	26	26,305	24,857	Jats and Ahirs.
		Total ...	...	...	345,143	
BALLABGARH	Mahrauli ..	Mahrauli ...	45	22,533	32,780	Gujars and Jats.
	Do. ...	Badarpur ...	28	11,548	16,490	Gujars.
	Faridabad ...	Faridabad ...	46	19,862	34,395	Shaikhs and Brahmans.
	Do. ...	Pali ...	22	13,457	21,750	Gujars.
	Ballabgarh ...	Fatehpurlaga ...	30	23,204	39,425	Meos and Jats.
	Do. ...	Ballabgarh ...	33	26,451	59,800	Jats.
	Chhansa ...	Tigaon ...	38	17,289	26,068	Gujars.
	Do. ...	Chhansa ...	25	21,689	37,300	Jats and Brahmans, Sayads Shaikhs.
		Total ...	...	...	269,215	

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Adminis-trative Division.

In the original constitution of zails great care was taken to give effect to local tribal influence and leading men from the dominant tribe of the zail were appointed zaildárs: as the tribes are much scattered and do not hold villages in solid blocks the number of zails were excessive. Since that time ideas have progressed and the personal qualities of an individual now outweigh family influence, so in the reconstructions of the zails convenience of administration has been to some extent allowed precedence over tribal considerations. Two, three or four zails according to the area have been apportioned to each rural thana.

Inámdárs.

As a compensation for the reduction in the number of zaildars and álá lambardár an establishment of 32 inámdárs (*ináms* Rs. 80 each) has been created. There is no restriction as to their appointment from special tribes, zails, or tahsíls, the list being a general one for the district, but in the first appointment each tribe and tahsíl has been given its due share. The inámdárs form a useful body of candidates for zaildárs and can act as substitutes if a zaildar is ill or otherwise employed: it is certainly an improvement in the administrative machine that there should be such men officially recognised and paid in place of the miscellaneous relatives who have hitherto helped in emergencies.

Álá Lambardárs.

Álá lambardárs or chief headmen were appointed in 1878-79 in villages where there were three or more lambardárs, and they receive one per cent. of the village land revenue as an extra *inám*. The álá lambardarí bubble burst some years ago and the rank is being abolished by the simple expedient of not filling up vacancies. The number has been already reduced from 349 to 242. So in a few years' time the álá lambardár will be as extinct as the dodo.

Lambardárs.

In 1880 there were 2,303 lambardárs; that is to say, a fraction under three lambardárs per village, a figure which, considering how small some of the hamlets are, has been recognised as rather high. In constitution villages are or may be divided into *pánas* which may be again sub-divided into *thoks*, *thulas* or *pattis*: (the nomenclature varies from village to village): so when lambardárs were first appointed, the responsible officer had to decide whether each division or sub-division should be allotted one or more lambardárs. According to present-day notions the unit adopted was too low, so gradual reductions are being made as opportunity arises. A rough standard of Rs. 1,000 of revenue, land and canal, per lambardár has been fixed, but the varying conditions in the villages render this standard most elastic. In two villages extra lambardárs have been appointed. As matters stand at present there are 2,162 lambardárs who obtain an average *pachotra* (headmen's due) of Rs. 25-9-0 as against Rs. 18-11-0 in 1880. Further reductions are in prospect.

CHAP. III, A.

Court of Wards.

No estates in this district are at present under Court of Wards.

Licenses to carry Arms.

In 1910 there are 480 licenses to carry arms of which 388 are gun licenses and the remaining 92 are licenses for swords and daggers: this is a reduction from the number held in previous years. Rather more than half the licenses are issued to residents of the city.

Section B.—Justice.

The judicial work of the district is supervised by the Divisional and Sessions Judge of the Delhi Civil Division.

Criminal Justice.

The District Magistrate is responsible for the administration of criminal justice, being chief magistrate and supervisor of the Police so far as their duties relate to crime. The staff at present (1910) consists of:—

	Stipendiary	*Honorary.*
First class magistrates	8	1
Second Ditto.	4	14
Third Ditto.	3	1

One of the first class magistrates has always the powers of a District Magistrate to enable him to try serious cases, by which the District Magistrates and Sessions Judge's Courts are relieved from undesirable strain. The honorary magistrates are all but two located in Delhi itself, where they usually sit as a bench for the trial of minor offences (chiefly assault cases) which occur within the city.

Within Delhi itself the bulk of the serious criminal cases are those which will be found in any commercial city, such as forgery, cheating, and breaches of trust. Excise cases too are frequent, especially since cocaine has been placed under a legal ban. Owing to Delhi being a terminus for so many railways an unusual number of railway cases are decided here: these ordinarily consist of the petty thefts to which the travelling public or the owners of merchandise are the common prey.

The rural district is distinctly law abiding: as in all rural communities cattle theft is the most serious form of criminal, but it is not very prevalent, being confined almost entirely to the hill Gujars, the Rángars of Jhundpur in Sonepat, and the southern riverain villages in the Ballabgarh Tahsíl: Burglaries are uncommon and riots too are rare, but unfortunately when squabbles do occur and the blood runs hot, several people will join in and the consequences are serious: thus the few murders, which do occur, are generally quite unpremeditated.

CHAP. III. B.

Justice.

The great trouble with which the courts have to contend is the number of false criminal cases which are brought on with some ulterior object: the proportion of complaints which are rejected *in limine* is large, but even as it is many more might be so rejected.

Civil Justice.

The civil judiciary is under the control of the District Judge whose principal assistants are an additional District Judge, a Sub-Judge, and the Judge of the Small Cause Court; the latter is assisted by a Registrar. The minor courts consist of Munsiffs who are mostly revenue officers in an allomorphic disguise: their number varies, but there are always two wholetime munsiffs and generally about eight others, with first, second or third class powers according to circumstances.

The rural cases comprise a considerable variety such as land suits, disputes as to shares, definition of rights within the village sites (for which there is no revenue records), and minor suits for debts. Within the last few years the number of cases has been largely reduced (*vide* Table 35, Part B), a fact which is attributable to the passing of the Land Alienation Act.

The city cases are usually more commercial in their origin, being brought in connection with debts, breaches of contract, partnership, etc. The value of land and property in the city brings into court many cases which would otherwise be allowed to drop.

The courts and their neighbourhood are frequented by large number of petition-writers and professional lawyers, some of whom have a considerable clientele, but their number is generally recognised as excessive, since many make but a modest livelihood.

Registration.

The Deputy Commissioner is Registrar for the whole district and he supervises the work of four sub-registrars located at the four municipal towns. They are regular departmental sub-registrars who draw salaries, Delhi Rs. 100 per mensem; Sonepat, Faridabad and Ballabgarh Rs. 30 per mensem each: in addition they receive 15 per cent. of the registration fees. The staff consists of nine moharrirs, of whom six are in Delhi.

Section C.—Land Revenue.

Village Tenures and Communities.

Of the 773 villages which are now recognised as mauzas or revenue estates 56 are classed as *zamindári*, 321 as *pattidári* and 396 as *bhaiachára*. The last named is the type which is already most common and to which in time all estates must come through inevitable inheritance, partitions and alienations. An estate may from the start have been either *pattidári* or *bháiachára*, but usually

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Land Revenue.

it has been *zamíndári khális*, that is, owned by a single proprietor: in time the single proprietor has been succeeded by descendants, who, refraining from immediate partition, have continued to hold the village jointly on a communal tenure, known as *zamíndári bilajmál*. As the descendants have multiplied branches of the family have partitioned off their shares, and the tenure has become divisional or *pattidarí*: if the whole village has been partitioned the tenure is complete *pattidárí*, but ordinarily some land (usually grazing land) has been left common and undivided, so that the tenure is incomplete *pattidárí*. Further evolution takes place by further sub-divisions and by alienations, until there is no common land, except the profitless roads, tanks, etc., and the measure of right is the individual holding, such as is now the case throughout England and the tenure is complete *bhaiachárá*. Such are the broad outlines of the evolution of the tenure, but variations are found in individual villages, the whole community or perhaps one of the sub-divisions keeping some land in common.

The sub-divisions of a village are known by various names according to locality, but the general custom is for the primary sub-division to be termed a *pána* or a *taraf* and the minor sub-division to be denominated *patti* or *thula*.

Distribution of the Revenue demand.

These differences in the village constitution are usually reflected in the different systems by which the proprietors arrange to subscribe the land revenue, but the system of distribution is no longer the accurate gauge that it used to be because of the introduction of an *ábiáná* assessment on wells and the distribution of revenue over soils as an abvious measure of equity. For this reason many villages which are returned as *zamíndári* or *pattidárí* pay revenue not according to shares or sub-divisions, but according to possessions alone, just as if the tenure was *bhaichárá*.

Method of Payment.

The following table shows how many villages have adopted each method of payment (always remembering that the well assessments are separate).

			No. of villages.
By a common rate on all land	...	...	103
By soil rates ...	...	...	630
By primary sub-divisions initially	...	...	5
By ancestral shares ...	...	...	36
	Total	...	774

The figures suffice to show that a truly representative classification can only be obtained by refinements involving permutations and combinations of the terms *zamíndárí*, *pattidárí*, *bháichára*, complete and incomplete.

Proprietary Tenures.

The statistics show that in the whole district there are as many as 244,421 holdings totalling to 542,267 acres; so the average area of each holding is 2·2 acres. Of this 98,050 holdings

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Land Revenue.

amounting to 304,464 acres are *khudkásht*. About this right as it exists only two matters are extraordinary. Firstly, the State has become proprietor of many villages and plots of land close to Delhi and in the Ballabgarh Tahsíl, which are known as the Crown Lands, difficulties of administration have arisen, so Government has already sold a goodly portion of this property retaining only areas which, being within six miles of Delhi, may be required for a public purpose or of which the sale was not immediately possible or advisable. The second unusual tenure is that of the descendants or successors in title of men who were known as *muafídárs* under native rule: its origin is of interest. The courts of the Indian rulers who preceded the British were frequented by numerous dependants who, for services, real or fancied, sometimes secular, sometimes religious, received in lieu of pay the profits of plots of land: such men were known as *muafídárs*, but the term is used in a different sense to that which is now generally attached to it; for, in former days, revenue and rent being indistinguishable, the *muafídárs* were (as a rule) in the position of *grantee* land-owners who retained all the profits of their grant, and, if at any time, they went out of favour the grant of quasi-ownership would be resumed. Hitherto the successor in *title* of these men, though exercising proprietary rights, have not been shown in the British revenue records as owners but (omitting refinements) as tenants holding under the village proprietary body. Such entries were quite anomalous, so now the *muafídárs* have been shown as owners with the reservation that, as they do not belong to the original proprietary body and have no rights in the village *shamilat*, they are only accorded the rights of a *malik kabza*.

Alá Málikán.

Besides ordinary proprietary right, as represented by the right to engage for the Government revenue, there are in six villages in Ballabgarh superior proprietors, who take a percentage on the revenue paid by the biswadárs, but exercise for the most part no other right in the property. These villages are Phaphunda, Dígh, Tájupúr, Ajraunda, Alipúr and Sadpúra, and the percentages paid in them to the superior proprietors (*álá málikán*) are diverse, varying in amount from 5 per cent to 10 per cent. Owing to a peculiar type of alienation the Delhi Municipality is *álá málik* in respect to a few plots in the Civil Lines.

Occupancy Rights.

The area held in occupancy right (a creation of our revenue law) amounts to 61,913 acres indicating 1·4 acres on the average size of a holding and representing some 9½ per cent of the total cultivation. The occupancy tenants pay cash rents, either lump rents or rents expressed in terms of the land revenue: a very few pay kind rents. The most noteworthy incident in connection with this tenure is that a large number of tenants hold occupancy rights under no definite section of the Act: the records, however, have been brought up to date, as far as possible, but no further details can be entered until there are further developments in the shape of private agreements or Court decrees.

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Land Revenue. Sardarakhtí Tenure.

In connection with gardens a tenure exists which at first seems very intricate, but which is simple enough when the mystery is unravelled. In such cases the tenant of the land is the owner of trees and cannot be ejected until he has been paid compensation for the trees: for practical purposes he is merely a tenant-at-will who has improved his holding to such an extent that the magnitude of the compensation assessable under Section 68 of the Tenancy Act prohibits his ejection. The tenant is known as a *sardarakhti-dár* or *amladár sardarakhtí* and can by custom alienate his right. The rents paid to the owner of the land are *chakota* rents or one-fourth of the amount for which the fruit sells, the tenant being responsible for the cost of production. The *sardarakhti* tenure right must not be confused with a *sardarakhtí muáfi* right which is defined in the article on assignments.

Makbúza Tenure.

The *makbúza* tenure or tenure of possession is a curious relic of less civilised days: it is the tenure by which the state or public bodies take possession of land of little intrinsic value at the time of occupation for public purposes. Formerly land was so occupied chiefly for roads, but now-a-days it is so taken up only for land improvements such as embankments. Neither the state nor public bodies have the *right* to take up land in this way, and such action can only be taken with the consent of the landowners. When such areas are no longer used for a public purpose the land is returned without any charge to the landowners.

Tenants-at-will.

Tenants-at-will cultivate at present $32\frac{1}{2}$ per cent of the land: the only peculiarity of tenure is that many pay no rent beyond the revenue and cesses because they are tenants of long standing, who would probably obtain occupancy or even proprietary rights if the landlord took the cases into court.

Village Menials.

As in other communities the villagers have regular attendants and artisans who attend to their wants: such as are employed only occasionally are paid either in cash or grain for the special service rendered, but the remainder receive dues, generally a share of the produce, such as the custom of the village directs.

Land Revenue under Native Rule.

It is usual to record in Gazetteers what revenues were levied when the country was under native rulers, but as there has been British occupation for more than a century, and the mutiny is responsible for the destruction of records, no details can be given. It is worthy of note, however, that the estate of the Rájá of Ballabgarh paid him in 1855 Rs. 1,97,000 but the summary settlement of 1857 (after the confiscation) was for only Rs. 1,69,000 and on revision two years later a further reduction of Rs. 40,000 was made. (A more detailed account is to be found in the 1880 Settlement Report, para. 157). The present assessment of the same tract is Rs. 1,55,295.

Early Revenue Administration.

The early revenue administration of the district was crude, not to say arbitrary. The great idea of successfully managing the revenue appears to have been to put strong pressure on subordinates,

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beginning at the *tahsildar*, who was held personally responsible for balances. This pressure was passed on to the *zamindars* in the shape of quartering *sawars*, on the villages till the revenue was paid. In such circumstances, it was not strange that complaints should come up from time to time that "cultivators in whole sets of villages are absconding *en masse*," either during or at the end of the short lease given them. It was considered a measure of relief to proclaim that "Government would take only Re. 1 a *kacha bigha* in the Khádar lands and 12 annas in the Bangar. These indulgent rates give about Rs. 4-12 and Rs. 3-10 as the incidence per acre. Reports of distressed villages mentioned in 1824 that, 'Chatera Báhádarpur' "paying Rs. 1,400 should pay Rs. 500," "Mallah Mazra, assessed at Rs. 2,180, beats Chatera Báhádarpur hollow in poverty and privation." Of Kimashpur assessed at Rs. 4,130 the "*zamindars* are tolerably intimate with poverty"; while another village, Atael, "has not *a tale* to tell now-a-days, for it is deserted."

Summary Settlement before 1844.

The early revenue arrangements appear to have been made as much as possible on the basis of existing arrangements without considering whether those assessments were originally just or not, or whether changed circumstances did not make it necessary to modify them materially. Of course when a village, or a set of villages broke down entirely, and the cultivators absconded in a body, it became obvious the only thing to do was to remodel, and probably to moderate the assessment. And in this way, Settlement operations were always more or less in progress, the agreements being intended apparently to last only for a few years, or until they should break down. If an estate was fairly lucky, the Settlements made with it appear to have been in Sonepat as follows :—

1.—Before 1817—the existing demand.

2.—From 1817-18 to 1824-25—First Summary Settlement.

3.—From 1825-26 to 1829-30—An agreement, or series of agreements, hardly authorised enough to be called a Settlement.

4.—From 1830-31 to 1840-41—Second Summary Settlement.

But in the earlier period it is not uncommon to find years noted as *tahsil kham*, showing the assessment to have broken down. Under such circumstances, farms naturally were common, and when they broke down direct management had to be resorted to with very significant results. Thus, in 1824, in an occasional report, 48 villages are mentioned as held in farm ; while in about the same year, 39 villages which had been assessed at Rs. 70,005, when held under direct management, brought in only Rs. 50,544. In the case of nine villages, the leases aggregating Rs. 32,131 had been cancelled by the second member of the Board, and the *kham* collections in the following year reached only Rs. 13,375.

Up till the Mutiny Sonepat was in the northern division of the Delhi Territories and was ruled from Pánipat, now in the Karnál District: so its vicissitudes are different from those of the rest of this district.

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The present Delhi and Ballabgarh Tahsils were then in the central division, the latter being mostly in its southern pargana, but of course the Ballabgarh, Jhajjar, and other estates had not been confiscated, and so were excluded from British management and assessments. The arrangements seen to have been on a more permanent basis then in Sonepat though the revenue often could not be collected and the villages were farmed.

For the summary settlement it would seem that no special officers were deputed as the work of deciding how much revenue a village should pay was a routine matter disposed of by the local district officer, but apparently the summary assessments which immediately preceded the Regular Settlement of 1842 were made under the orders of Mr. H. Fraser in Sonepat, Mr. Taylor in Delhi, and Mr. Barnes in Ballabgarh.

Though all those revenue arrangements seem to present day ideas very rough, it must be remembered that there were no proper records and assessments were based initially on the sums taken from the peasantry under native rule: the real trouble seems to have been that the assessments were pitched too high for regular collection and there was no satisfactory machinery by which elasticity of collection could be created.

The Regular Settlement of 1842-44.

The Regular Settlement of Sonepat was made in 1842 by Mr. Edmonstone, the proposals of Mr. Fraser who had been entrusted with the task in the first instance being disallowed. The rest of the district (still excluding the Ballabgarh and Delhi villages under native rule) was assessed by Mr. J. Lawrence in 1844. Owing to the holocaust of records at the Mutiny accurate returns are not obtainable but at that time the demand for the whole district appears to have been Rs. 7,50,000 approximately, which can be divided up as Sonepat Rs. 3,50,000, Delhi Khalsa Rs. 3,05,000, Ballabgarh Khalsa Rs. 95,000.

In these assessments it was recognised that the former pitch was excessive and the reduction in the Delhi Tahsil amounted to as much as 10 per cent. all round.

After the Mutiny the estates of all rebels were escheated and the following were subjected immediately to a Summary Settlement:—

Tahsil.	No. of villages.	From whom escheated.
Sonepat (3)	3	Miscellaneous Jágirdárs.
Delhi (61)	11	The King of Delhi.
	5	The King of Oudh.
	7	The Nawáb of Jhajjar.
	13	Mirza Mughal Beg.
	3	Rájá Jai Sukh Ram.
	8	Ráo Ráo Palgri.
	4	Nawáb Bahádur Jang Khán.
	10	Miscellaneous Jágirdárs.
Ballabgarh (134) ...	8	The King of Delhi.
	126	The Rájá of Ballabgarh.

The summary assessment amounted to approximately Rs. 2,50,000, so it can be assumed that the First Regular Settlement, in conjunction with the current summary settlement of special localities, amounted to, in round figures, ten lakhs of rupees. This revenue, however, still proved too heavy, as assessing officers were still feeling their way towards a workable pitch, and before the regular settlement of 1872 large reductions, amounting to Rs. 78,000, were allowed, the chief items of which were:—

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Tahsil Sonepat. Rs. 23,000 reduced on account of deterioration from *shor* in the Bangar (1880 Settlement Report, para. 183).

Tahsil Delhi. Rs. 11,500 reduced mainly in the Jhajjar villages on account of over-assessment (1880 Settlement Report, para. 186).

Tahsil Ballabgarh. Rs. 42,000 also on account of obvious over-assessment mainly in the confiscated villages summarily assessed (1880 Settlement Report, para. 187).

There were, no doubt, other minor adjustments of which there is no definite record : but anyhow by 1872 the *kistbandi* had been reduced to Rs. 9,22,166 which constituted the existing assessment with which the new Settlement Officer had to deal.

The bulk of those assessments having been framed under N. W. P. rules based on Regulation IX of 1883, the standard of assessments was apparently two-thirds assets : initially the assessments were very high, but towards the end of the period of settlement, that is, in the seventies, the burden of the demand on the revenue payer must have been appreciably lightened by the establishment of peace and settled rule, by the rise in prices which followed the opening up of communications, and by the liberal reductions which have been detailed above : at any rate the revenue was collected without difficulty, except in times of notorious distress.

The Second Regular Settlement of 1880.

The revision of the first regular settlement began in 1872 under the auspices of Mr. Oswald Wood, who submitted the assessment reports for the two southern tahsils: in 1878 he was relieved by Mr. R. Maconachie, who wrote the remaining assessment report for Sonepat and wound up the operations in 1880. The principles on which the assessment was made were those introduced by Act XXIII of 1871 which ordained that the half net asset standard in lieu of the two-thirds asset standard was to be adopted. The records underwent a thorough revision—both the record of rights and various records of statistics being prepared in forms which do not differ widely from those nowadays in use. The most notable features of the assessment were the introduction of a fluctuating assessment in a few villages affected by the Najafgarh Jhil and the institution of a dry assessment in the canal villages supplemented by a fluctuating owner's rate.

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The result of the operations was that a total assessment of Rs. 9,67,142 as against a previous revenue of Rs. 9,22,166 was imposed, but of the new revenue Rs. 1,22,662 was the estimated fluctuating revenue obtainable in the guise of an owner's rate. In according sanction to the new demand the Punjab Government remarked "that the incidence of revenue, *i.e.*, Re. 1-13-6 per acre of cultivation, places the district in the very first class in the Punjab" and further expressed the opinion that "in unirrigated estates the revenue assessed is one which is to be paid in full in ordinary years, but which Government does not expect to realise at once during severe and long continued droughts".

Subsequent history verified the prognostications in a remarkable manner in that up to the introduction of the new (1910) assessment only Rs. 3,42,620 were remitted in spite of the dry cycle of years which began in 1896. Since the remissions were only 40 per cent of the demand for one year and the revenue collections were made with considerable elasticity, the assessment fully justified its imposition and the sympathetic administration of the responsible revenue officers is entitled to recognition.

The Third Regular Settlement.

The Third Regular Settlement began in 1906 and was conducted by Major H. C. Beadon. Revision of the measurements of the 1880 maps was all that was aimed at and consequently remeasurements were necessary in only 74 villages. The Record of Rights has been drawn up in the manner enjoined in the Land Revenue Act of 1887 and the instructions published thereunder.

Settlement operations were preceded by the submission of a forecast report which satisfied Government that a re-assessment was advisable mainly on account of the increase in prices, reckoned at 15 per cent and the great extension in irrigation (20 per cent.) combined with a small extension (3 per cent.) in cultivation.

The assessment circles fixed were in Tahsíl Sonepat Khádár and Bángar, and in Tahsíls Delhi and Ballabgarh Khádár, Bángar, Dábar, Kohí and Khandrát.

The Khádar circles comprise the low-lying riverain tracts; the Bángar circles are the uplands down which the canals pass; the Dábar is the low-lying receptacle which catches such drainage, on either side of the hills, as cannot find its way by natural flow into the river: the Kohí is the hill tract and the Khandrát is the Bángar land in the neighbourhood of Delhi where the city demands have occasioned an unusually intense cultivation. The most noteworthy matters in connection with the formation of the assessment circles are (1) that the sub-colline strip known as the Zerkohí and forming a separate circle at last settlement has been merged in the neighbouring Kohí and Dábar circles, (2) the Khádár of the Delhi Tahsíl has been reduced by the rich villages south of Delhi being transferred to the Khandrát, (3) the suburban villages of Delhi which have been amalgamated into one *mauza* have been treated as a special circle and assessed separately, (4) other adjustments for various reasons, such as including all *nahrí* villages

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in the Bángar, etc., have been made and (5) an area of 12,384 acres in the Delhi Dábar has been constituted as a sub-circle bearing a fluctuating assessment.

Assessment Reports were submitted for the Northern half of the District, the Southern half and for *mauza* Delhi, the orders on which sanctioned the following soil rates :—

1	2	3	4	5	6	7	8	9	10	11
		CULTIVATED SOILS.						WASTE.		
Tahsil.	Assessment Circles.	Garden.	Cháhí sown.	Nahri recorded.	Sailab recorded.	Bhur recorded.	Baranibalance recorded.	Residential.	Special.	Grazing.
		Rs.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs.	Rs.	Rs.
SONEPAT ...	Khádar ...	...	3 0	...	2 0	1 0	1 14	...	...	...
	Bángar ...	...	3 8	2 8	...	1 0	2 0	...	...	...
DELHI ...	Khádar ...	...	3 0	...	1 10	1 0	1 10	...	...	...
	Bángar ...	...	3 4	2 4	...	1 0	1 12	...	...	...
	Dábar ...	...	2 8	..	1 12	0 10	1 8	...	...	...
	Kohí ...	...	3 4	...	1 4	0 12	1 0	..	...	...
	Khandrát ...	12	4 4	2 4	2 8	1 0	2 0	...	...	...
	Mauza Delhi ...	10	5 8	9 8	4 0	...	3 0	5	4	1
BALLABGARH	Khádar ...	...	3 0	...	1 8	1 0	1 5	...	...	...
	Bángar ...	...	3 4	2 4	...	1 0	2 0	...	...	...
	Dábar ...	...	3 0	...	2 0	1 2	1 11	..	...	...
	Kohí ...	...	3 4	...	1 4	0 12	1 0	...	...	...
	Khandrát ...	...	4 4	...	2 0	1 0	2 0	...	...	...

The results of the new assessment, as compared with those of the revised settlement, may be summarised :—

Detail.	Kistbandi of 1909.	New assessment.	INCREASE.	
			Actual.	Percentage.
	Rs.	Rs.	Rs.	
Land Revenue	8,52,307	11,06,803	2,54,496	30
Cesses at 13⅓ per cent. ...	1,13,641	1,47,574	33,933	30
Average Canal revenue (round)	3,25,000	3,25,000	...	...
Total ...	12,90,948	15,79,377	2,88,429	22·5

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The cesses amount to $13\frac{1}{3}$ per cent. are as follows:—

Local Rate Rs. 8-5-4 per cent. of the land revenue.
Lambardári rate Rs. 5 per cent. of the land revenue.

The assessments are reasonable and moderate throughout, but, judging by the available statistics, possibly the demand in the Bángar *chak* of the Ballabgarh Tahsíl is pitched somewhat higher than elsewhere. Apart from the fact of the universal rise in prices, the principal increases can be readily accounted for. In the Sonepat Khádar well irrigation has increased 45 per cent: in the Northern Bángar the increase is largely due to a different principle of assessment, whereby canal land has been subjected to a wet assessment instead of the former fluctuating owner's rate being considered part of the true land revenue. The great increase in the garden assessments is also due to a change of assessment policy, whereby the gardens are now assessed according to the profits obtainable and no longer at lenient rates. An assessment at half-net-asset rates would have amounted to about 15 lakhs, of which the present assessment is 73 per cent: a greater revenue might have been taken, but the immediate enhancement of 22·5 per cent has been deemed sufficient.

Progressive assessments have been instituted by which the State will forego Rs. 49,340 till the *kharíf* harvest of 1914 and Rs. 15,498 till the *kharíf* harvest of 1919.

The proportion of the instalments varies considerably in different parts of the district, but the general proportions for the whole district work out: after *kharíf* $7\frac{1}{2}$ annas and after *rabí* $8\frac{1}{2}$ annas per rupee of land revenue assessed. The dates by which the instalments have to be paid are *Kharíf* 15th January, *Rabí* 15th June.

Assignments of land Revenue.

There are two broad divisions into which assignments of revenue naturally fall. First, those which were granted before the mutiny and continued afterwards, when it was proved that the assignees had taken no part in the rising: secondly, the assignments granted after the mutiny, generally for loyal services. The first division includes a large number of petty assignments for the up-keep of shrines and groves. The principal assignments are:—

Tahsil.	Village.	Area of which L. R. is released in acres.	Amount of *Mudfi* or *Jágír*.	REMARKS.
		PREMUTINY.		
Sonepat ...	Sandal Kalan ...	279	719	Granted by Emperor Sháhjahán to Mussammat Shamso.
	Fazilpur ...	314	735	Granted by the Emperor Tuglak to the Sayad owners.
	Lawan ...	393	850	Ditto.

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Tahsil.	Village.	Area of which L. R. is released in acres.	Amount of *Mudfi* or *Jágír*.	REMARKS.
		PREMUTINY—*concluded.*		
Delhi ...	Magholpur Kalan.	254	450	Granted by Emperor Shah Alam to a dependant, Háfiz Noor.
	Todapur ...	662	450	Granted by Emperor Mohamad Shah to his wife, Mussammat Sahiba Mahal.
	Naraina ...	...	2,483	
	Mundka ...	2,971	4,500	Granted by Sikandar Lodhi and afterwards by the Emperor Aurangzeb to Sayad Mohamad Ali and Mohammad Bakar.
	Bakarwala ...	1,222	1,456	Granted to Shah Abdul Hak Mohamadi.
	Gheo ...	1,811	3,000	Granted by Rajá Mádho Ráo Naráyan, Mahratta, to Babádur Khan for services.
	Arakpúr-Bágh-Mochi.	795	396	Was owned by Temor Shah and held in *Jágír*. Was sold by auction.
Ballabgarh ...	Bhopáni ...	1,923	2,500	Granted to the head of the D'Erewar family for services to Mughal Emperor at the beginning of the 19th century.
	Aghwánpúr ...	1,052	409	The property of the Royal family or Royal *Jágír*.
	Mahrauli ...	...	1,950	Granted for the up-keep of the Dargáh Kutab Sáhib.
	Kharera ...	363	800	See Mundka above.
	Molarband ...	...	741	Granted for the up-keep of the Dargáh at Delhi.
	Atali ...	1,513	1,362	An old grant held by the Ballabgarh Rájá's family continued after the mutiny on proof of innocence.
		POST-MUTINY.		
Sonepat ...	Bahálgarh ...	485	500	Granted to Kanwar Pirthi Singh for aiding Europeans.
Delhi ...	Chaukri-Mubárakábád.	...	500	Rs. 1,000 were granted to Ganeshi Lal for loyalty and Rs. 500 was continued to his son.
	Kharkharí-Baund	344	425	Granted to Baldeo Singh, Tehsildar, for 2 generations. Now held by R. B. Rugh Nath Sahai.
	1. Banskauli (Delhi). 2. Karhaula ... 3. Ranerah (Ballabgarh).	256 78	450 100	Granted to Bhore Khan, Meo, for aiding Sir John Metcalfe. Now held by his grandsons.

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Tahsil.	Village.	Area of which L R. is released in acres.	Amount of *Muáfi* or *Jágir*.	REMARKS.
		POST-MUTINY—*concluded.*		
Ballabgarh ...	Daulatábád ...	745	1,550	Granted to R. B. Lachhman Singh for loyalty.
	Mohna ...	4,256	6,000	Granted to Risáldár Bahádar Mir Hidayat Ali for services in the mutiny now held by his grand children.
	Síkri ...	1,293	2,600	Granted to Mir Parwarash Ali and descendants for loyalty and aid.

Full details of the post-mutiny rewards granted are recorded in Appendix XIV to the 1880 Settlement Report from which it will be seen that many rewards were given, but that often biswadárí right was given or the assignments were of a temporary nature: the list of existing assignments is now much shorter, as many of the grants have lapsed.

The assignments have been carefully examined during the past settlement and have been recorded in six registers, the salient statistics are brought together in the statement below:—

1	2	3	4	5	6	7	8	9	10	11	12	13
	TAHSIL SONEPAT.			TAHSIL DELHI.			TAHSIL BALLABGARH.			DISTRICT.		
ASSIGNMENTS GRANTED.	No. of *Muafis* shown in the register.	Area of which the land Revenue is assigned in acres.	Value in Rs.	No. of *Muafis* shown in the register.	Area of which the land Revenue is assigned in acres.	Value in Rs.	No. of *Muafis* shown in the register.	Area of which the land Revenue is assigned in acres.	Value in Rs.	No. of *Muafis* shown in the register.	Area of which the land Revenue is assigned in acres.	Value in Rs.
1. In perpetuity and capable of alienation.	15	1,208	2,918	611	7,474	24,160	58	4,388	5,383	687	13,070	32,461
2. In perpetuity but inalienable.	3	614	628	10	93	602	10	7,435	11,916	23	8,142	13,146
3. During the pleasure of Government	1	4	6	...	...	...	12	307	316	13	311	322
4. Conditionally during the up-keep of institutions.	5	93	177	27	296	511	95	777	3,465	127	1,166	4,153
5 Conditionally during the up-keep of trees	[illegible]	11	24	2	26	309	5	23	54	9	60	387
6. Temporarily for life or lives of term of settlement	...	...	...	4	45	1,111	16	92	139	20	137	1,250
Total ...	29	1,930	3,753	654	7,934	26,693	186	13,022	21,273	879	22,886	51,719

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Land Revenue

Crown Lands.

Apart from the land held by the State in its various departments for public purposes, there are considerable areas of agricultural and urban land of which the State is full owner : as the State only buys land for public purposes, such areas have become Crown property almost entirely through escheat, and that after the mutiny. Though thus derived from one source, the land which was originally owned by the king of Delhi has been denominated *taiul* (the word is of Turkish origin meaning a pocket and the land may therefore be regarded as having been the *peculium* of the king), whilst the term *nazul* has been applied to other Crown land : as this has engendered confusion all non-departmental State land is now termed *nazul* and is described as rural or urban *nazul* as the case may be.

Rural Nazul.

The rural *nazul* lands were very extensive indeed, and included originally the whole or part of 6 estates in Sonepat, 144 in Delhi, and 15 estates in Ballabgarh, but the administration has proved so troublesome that from time to time plots have been sold, and finally it has been decided that with unimportant exceptions all rural *nazul* situate more than six miles from Delhi is to be sold, whenever possible, without injustice to *zamindars* or loss to Government. The general principles of the sales are that the co-sharers or cultivating occupants are to have first option of purchase at a price, which represents thirty years purchase of the full renting value in excess of the land revenue and cesses and that the purchasers having paid at least 10 per cent. as earnest money may pay the balance in not more than twenty half-yearly equated instalments.

The *nazul* lands which now remain are : outside the six mile radius 4,395 acres, practically all of which can be disposed of when opportunity arises : inside the six mile radius 10,078 acres.

The land is cultivated by tenants, who pay as rent the land revenue and cesses and a *malikana* which varies according to the status of the tenant : blocks of valuable grazing waste are leased for cash rents. Part of the rural *nazul* within the precincts of *Mauza* Delhi has been vested in the Municipal Committee for management, and an intention has been expressed of handing over the rest of it to the Committee for management as a more uniform arrangement.

Urban Nazul.

Urban *nazul* comprises town sites, building sites and non-agricultural land in Delhi and its suburbs all of which is vested in the Municipal Committee and from which ground rents are obtained. Urban *nazul*, such as is found at Faridabad and Ballabgarh, is under the management of the Deputy Commissioner.

Secure and Insecure Areas.

To enable the revenue to be collected with discrimination according to the seasons, a scheme has been drawn up in which the various villages are classed as (A) secure, (B) insecure, (C) very insecure, according to the extent to which they are protected

CHAP. III. D.

Miscellaneous.

by irrigation : the numbers in each class are (A) 364, (B) 115 and (C 293. For each village for each harvest a danger rate has been noted and when the "*báráni* unit" incidence approaches the danger rate, there is *prima facie* indication that some relief may be necessary. Suspensions are not expected to be often necessary after a *kharif* harvest as the monsoon seldom fails entirely, and in any case the *kharif* is largely a fodder harvest, at least in respect of unirrigated land. The *rabi* harvest is a peoples' crop at which but little fodder is grown, and a short rainfall in September restricting the sowings, or a failure of the so-called Christmas rains (*chhoti barsat*) will probably necessitate suspensions in the class B and C villages.

Alluvion and Diluvion.

As the river runs down on the side of the whole length of the district, the yearly di-alluvion work forms an important feature of the revenue administration. The Jamná, however, is not nearly so violent or capricious as the Punjab rivers generally speaking are, and its incursions are rarely sudden or unforeseen. There are altogether 96 villages in the district at present bordering on the stream; 25 in Sonepat; in Delhi 27; and in Ballabgarh 44. The boundary of Provincial jurisdiction throughout is the deep stream of the river, but for proprietary right the custom varies. In Sonepat for all the 25 villages, the deep stream determines the property (*machha sin*); in Delhi only 6 use this rule; in the remaining 21 villages the proprietor keeps his land whether on this side of the stream or not (*mu'aiyan-ul-had*) : in Ballabgarh 9 follow the deep stream and 35 the fixed boundary.

The disadvantages of fluctuating boundaries along the Punjab rivers have been recognised and fixed boundaries have been demarcated throughout the Province under the provisions of the Riverain Boundaries Act. The Punjab and United Provinces Governments are now in communication on the subject of creating a fixed juridical boundary along the Jamná; but, of course, even in the event of a successful issue, alluvion and diluvion measurements will have to be made for the estimate of changes of land revenue. The alluvion rates are:—Cultivated, bearing first class crops Re. 1-8-0, bearing second class crops Re. 0-12-0 per acre. In Mauza Delhi the rates are double and a change of Re. 0-8-0 is fixed for grazing waste.

Section D.—Miscellaneous Revenue.

Table 44, Part B.

The table shows the various heads which comprise miscellaneous revenue to which reference is now made in detail.

Canal Revenue.

The most important head of miscellaneous revenue is the canal dues, which, during the past 10 years, have varied from Rs. 1,86,549 to Rs. 3,96,286. The rates which the Irrigation

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Miscellaneous. Revene.

Department are authorised to levy have been already detailed in Chapter II A: Tahsil Sonepat, in which there is most irrigation, provides the largest quota of this revenue. If the statistics of collection are examined it will be seen that the income in years of good rainfall dwindles, but that in years of drought the income mounts up showing how eagerly the cultivators demand extra irrigation.

Stamps.

In round figures the income from stamps amounts to Judicial 2 lakhs and Non Judicial $\frac{3}{4}$ lakh: the increase in income from judicial stamps from $1\frac{1}{3}$ lakhs during the past decade is remarkable, indicating as it does a great increase in commerce and trade. Licenses to sell stamps judicial and non-judicial are granted to the number of 24 annually.

Income tax (Tables 42 and 43).

The income tax revenue of the district amounts to roughly $1\frac{1}{4}$ lakhs of rupees which is a singularly small increase on the figures of 1901, even allowing for the reduction caused by the release from taxation in 1903 of incomes under Rs. 500. Of this sum the city contributes about 90 per cent., Sonepat Tahsil 8 per cent., Delhi Tahsil (rural) and Ballabgarh Tahsil 1 per cent each—a further corroboration of the comparative affluence of the Sonepat Tahsil.

The higher figures for 1906-1908 are the results of a trade boom which took place at that time. The principal assessees are the rich bankers of Delhi, many of whom have been mentioned in Chapter I C., money-lenders, contractors, dealers in provisions and piece-goods, owners of house property, and the dealers in jewels and curios which have such attractions for the cold-weather visitors. Assessment is a matter of considerable difficulty as it always must be in this country, being a western graft on our oriental tree; there is known to be much evasion and yet the rate is only the equivalent of six pence in the pound (half what is now paid in England) and the average per assessee works out to only Rs. 73 a year, say, Rs. 6 per mensem.

Excise.

There is now no distillery in the district, the old official central distillery having been closed in 1900. Liquor is obtained from the licensed private distilleries at Karnal, Amritsar and Sujanpur in the Punjab and also from Rosa in the United Provinces. There are in all thirteen retail shops for the sale of Indian spirit, of which ten are in the city. In the rest of Delhi Tahsil there are no shops, in Sonepat Tahsil one and in Ballabgarh two. Five retail shops in the city are also licensed to sell imported European spirits, etc., and a similar license is held by the contractors at the Railway Refreshment Room: these contractors have also a wholesale license and in addition the hotel keepers have retail licenses. The high taxation on country spirits leads to illicit distillation to a small extent, not in the rural district but in the city, where a still can be worked without immediate detection in a back street.

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Local and Municipal Government.

Poppy cultivation is prohibited, so licensed vendors obtain their opium from the treasuries, after official import from Ghazipur in the United Provinces; they also sell Punjab opium from Ambala and other opium not officially supplied to them, but obtained in the Punjab wholesale market. Import of opium from other provinces, except under official arrangements, is illegal.

Cocaine can only be sold for medicinal purposes under proper license, but the cocaine habit is so prevalent and the drug so valuable that smuggling is extensively practised. The stuff comes by post from Germany as a rule, though it may have been re-addressed so as to come ostensibly from elsewhere: several seizures of such parcels have been made, but the addressees are seldom traceable.

Opium, *bhang* (*i.e.*, hemp), and *charas* are each sold under separate retail licenses; but the licenses for the retail sale of each article have for a number of years been granted in one form to one contractor, who pays a lump sum for the whole farm: similarly with the Indian spirit retail licenses. Theoretically the fees for all these licenses are determined by auction: but contractors have combined to render a true auction of individual licenses impracticable.

Registration.

The income from registration is very small, amounting to about Rs. 22,000 per year: there has however been an increase of some Rs. 25 per cent. within the past decade. The returns of this revenue corroborate the returns of the revenue from the sale of judicial stamps in indicating an increase in transactions.

Local Rates.

The local rate income must of course vary with the land revenue of which it is $8\frac{1}{3}$ per cent. The figures in the table show the variations in detail. The whole of the revenue from this source is allocated to the District Board for the maintenance of district institutions.

Section E.—Local and Municipal Government.

The District Board.

The District Board was constituted under Act XX of 1883 through Punjab Government Notification No. 2301, dated 17th September 1884. The most recent rules for the appointment of members will be found in Punjab Government Notification No. 140, dated 26th November 1900. The board consists of 9 *ex-officio*, one appointed and 19 elected members, the term of office of un-official members being limited to three years. The Deputy Commissioner is the President, but the brunt of the work falls on the Secretary who is usually one of his assistants. The other *ex-officio* members are the Tahsildars and Naib Tahsildars, and the un-official memberships (for which there is little or no competition) are held mostly by *zaildars* or candidates for that post.

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The duties of the District Board are multifarious in the extreme, as the Board is the medium through which the rural district is managed. Public buildings are built and kept in order, schools and hospitals are financed, arboriculture receives attention, roads and *bands* are made and repaired, ferries and cattle-pounds are managed, a veterinary establishment and stallion stables are maintained at each tahsil, and even the distribution of quinine and financing of plague measures are in the charge of the board.

A small building was built from District Board funds in 1901 in the kacheri compound in which is provided office accommodation for the head-quarter staff. The clerical establishment consists of 1 head clerk (Rs. 100 per mensem) and 2 other clerks: the engineering department is in the immediate charge of a Rurki-taught Engineer drawing a salary of Rs. 250 per mensem, the lesser lights being overseers and sub-overseers on pay ranging from Rs. 30 to Rs. 60 per mensem.

The following figures taken from the 1908-09 accounts give a very fair idea of the income and expenditure; the figures in brackets show the percentages of the total—

INCOME.	Rs.	EXPENDITURE.	Rs.
Local Rate (50) ...	74,986	Education (26) ...	41,679
Grants from Government (32)	47,529	Contributions to Government (19) ...	28,922
Grants from Municipal Committee ($3\frac{1}{2}$) ...	5,113	Road repairs (12) ...	18,239
Miscellaneous ($14\frac{1}{2}$) ...	20,461	Ordinary medical expenses (10)	16,052
		Office and Engineering Establishment (9) ...	13,652
		Arboriculture (5) ...	7,300
		Miscellaneous (19) ...	31,289
Total ...	1,48,089	Total ...	1,57,133

Of the miscellaneous income the principal items are cattle-pound fines, ferry contracts and school fees in the order named: of the miscellaneous expenditure construction and repair of public buildings and veterinary expenses are the most important.

As matters stand at present the Board's income and expenditure amount to $1\frac{1}{2}$ lakhs of rupees and there is just half a lakh in hand.

The Delhi Municipality.

The Delhi Municiplity has existed in one form or another since annexation, but first came into prominence in 1881-82 when it formulated schemes for water works and drainage: it has been since declared a Municipality under Act XIII of 1884. The boundaries of the Municipality are somewhat cumbrously defined in Punjab Gazette Notification No. 69 of the 6th February 1892, but the municipal area is coterminous with *Mauza* Delhi which

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has been recently formed as one revenue *Mauza* out of the suburban *mauzas*. The river Jumna is the eastern boundary and the surrounding *mauzas* working from the north are: Timarpur, Rajpur Chháoni, Sadhaura Kalán, Sadhaura Khurd, Sherpur, Narhauli, Indarpat, Nagla Máchí. The total area, including the Fort and Daryaganj cantonments, is 7,562 acres.

The Municipal Committee is of the first class and consists of twenty-four members of whom twelve are elected: of the remaining twelve, 5 are *ex-officio* members and 7 nominated by Government.

The *ex-officio* members are the Deputy Commissioner, the Senior Assistant Commissioner, the Executive Engineer, Provincial Division, the Civil Surgeon and the Cantonment Magistrate. In 1909-10, seven members of the Committee were Europeans.

The Deputy Commissioner is now the *ex-officio* President though previous to 1884 the Committee had the power to elect its own President. Higher control is vested in the Commissioner of the Division. For the furtherance of business the Committee has appointed various sub-committees which advise the general committee on their several subjects, but the executive officer of the Committee is the Secretary who is a specially deputed Assistant Commissioner. The leading officials include the Municipal Engineer (salary Rs. 750—50—1,000 per mensem) who performs for the Municipality the same duties as the Executive Engineer (Buildings and Roads) performs ordinarily for Government; the Assistant Secretary on a salary of Rs. 250—10—300 per mensem; the Superintendent of the Water Works, Rs. 400 per mensem; the Municipal Gardener on Rs. 255 per mensem (only two-thirds of which is paid by the Municipality); 9 superior clerks whose pay ranges from Rs. 50 to Rs. 100 per mensem. Lower down in the scale come the *daroghas* of the various departments and finally a small army of petty *moharrirs* and menials the details of whom need not be recorded. As may be readily imagined from the figures of the income of the Municipal Committee, which in 1911-12 amounted to some 13½ lakhs of rupees, the administration of its concerns is an important charge. In addition to the ordinary routine matters of taxation, sanitation, water supply and lighting, the Committee is responsible for the up-keep of the three important pleasure gardens, the Roshanárá, Queen's and Kudsia *Bághs* and also the Nicholson and Gracia ornamental plots: further a considerable area of both urban and agricultural land, the property of the State (*nazul*), has been handed over to the Municipal Committee for practical management.

The municipal offices are located in a fine large building in the Queen's gardens facing the Chándni Chauk at the Clock Tower: the building includes a town hall suitable for entertainments, a public library, reading rooms and also a museum.

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Bye-laws regulating the rules of business were published in Punjab Government Notification No. 366 of 6th December 1891. In the following list will be found the principal Government Notifications relating to various bye-laws and other subjects :—

NUMBER OF PUNJAB GOVERNMENT NOTIFICATION.	SUBJECT.
1. No. 424 of 22nd June 1861 ...	Application of section 34 of Act IV of 1861 (Police Act).
2. No. 114 of 22nd July 1890 ...	Investiture of certain officials with powers of Police officers.
3. No. 250 of 30th March 1891, and No. 272 of 20th April 1906.	Registration of Births and Deaths.
4. No. 250 of 30th March 1891...	Slaughter-house and markets.
5. No. 250 of 30th March 1891...	Burial and burning grounds.
6. No. 1114 of 24th December 1891	Prevention of cruelty to animals.
7. No. 419 of 12th August 1892	Compounding of offences.
8. No. 105 of 18th March 1896...	Maximum loads.
9. No. 55 of 5th February 1896	Vaccination.
10. No. 299 of 18th June 1898 ...	Octroi limits bye-laws.
11. No. 454 of 6th October 1900	Erection of buildings.
12. No. 424 of 17th September 1900	Imposition of poll tax.
13. No. 590 of 16th December 1901	Imposition of a house tax.
14. No. 345 of 24th July 1901 ...	Rules regarding Municipal elections.
15. No. 511 of 19th October 1902	Storage of kerosine oil.
16. No. 501 of 11th October 1905	Adoption of Municipal Account Code as bye-laws.
17. No. 409 of 28th June 1906 ...	Bye-laws regarding the letting off of detonators.
18. No. 601 of 21st October 1908	Imposition of milch cattle tax.
19. No. 297 of 3rd April 1909 ...	Imposition of wheel tax.
20. No. 862 of 2nd December 1909	Transit fees bye-laws.
21. No. 545 of 1st October 1911 ...	Hackney carriage rules.
22. No. 422 of 29th October 1912	Regulation of water supply, bye-laws for.

City improvements.

In the past twenty years the Committee have shown great energy in making city improvements by which the comfort and health of the populace have been increased. By the water-works schemes the Jamna water is filtered near Metcalfe House and is pumped up to a large reservoir alongside Hindu Ráo's house on the ridge, from which command it is distributed all over the city and Civil Lines. In construction and extensions these works have cost the Municipality close on eighteen lakhs of rupees. The supply of water from the Jamna is of course very great, but it speaks well for the pumping and storage arrangements that they stood well the strain of the Coronation Durbar Camps in January 1912. In the matter of sanitation an intramural drainage scheme was finished in 1909 at a total cost of Rs. 9,08,000: the roads and *galies* are well swept and watered and the *daláos* (collecting depôts for filth) which were for many years a source of annoyance, have in many parts of the city been removed outside the city walls, whilst in all cases these places are now kept comparatively clean and sanitary by the appointment of sweeper *chaukídárs* to look after them. Outside the city near the jail is a trenching farm which is a source

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of recurring revenue to the Committee and moreover the city sewage is now run outside on to agricultural land, the cultivators of which pay Rs. 20 per acre for the benefit of such irrigation. At the present moment a loan of three lakhs is being raised for the inauguration of an extramural drainage scheme, by which the suburbs known as the Sadr Bazár, Sabzimandi and Pahárganj will receive similar sanitary attention in extension of the intramural schemes.

In the matter of lighting Delhi is by no means backward: it is true that the minor streets and Civil Lines are lit somewhat sparsely by kerosine lamps only, but in the principal streets electric light is established: in all there are 40 lamps of 2,000 candle power each and 80 incandescent lamps of 50 candle power each. The public buildings, houses in Civil Lines, and the houses of the *raises* are now as a rule lit by electric light. Delhi also boasts of an electric tramway which was opened in 1908. The line connects the Sabzimandi, the Railway Station, Chándni Chauk and Jáma Masjid thus following the principal arteries of commerce. The Municipal Committee maintain six primary schools at an annual cost of about Rs. 10,000, an Industrial School at a cost of Rs. 3,500, and the Islamia Girls' School at a cost of Rs. 1,500. Further a sum of Rs. 12,000 is spent in grants and scholarships so that the total expenditure on education is not far short of Rs. 30,000.

Income and expenditure.

The details of income and expenditure under main heads for some years will be found in Table 46 (Supplement), Part B: the figures for 1911-12 (Durbar year) are abbreviated as below, the entries in brackets representing the percentages of the total—

INCOME.	Rs.	EXPENDITURE.	Rs.
Octroi (39)	5,32,581	Public health and convenience (54)	10,34,440
Income from property (24)	3,19,391	Public safety (13½) ...	69,633
Tax on houses and lands (6)	86,683	Administration (8½) ...	90,716
Other Taxes (3) ...	40,529	Public Instruction (3) ...	27,453
Miscellaneous (28) ...	3,77,067	Miscellaneous including interest on debt (22) ...	2,88,849
Total ...	13,56,251	Total ...	15,11,091

The opening balance for 1910-11 was Rs. 18,114.

Minor Municipalities.

There are at present three minor municipalities in the district, *i.e.*, Sonepat, Farídábád and Ballabgarh: all are of the second class. They all help to maintain a local hospital and school and make a contribution to the policing of the area, but the main expenditure is on sanitation and roads. Their income is mainly derived from octroi. Each has a town hall in which business is transacted.

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Sonepat.

The Sonepat Committee consists of nine members of whom one (the Tahsildar) is *ex-officio* President and two are nominated.

The chief items of account in 1910-11 were :—

INCOME.	Rs.	EXPENDITURE.	Rs.
Octroi	15,792	Administration ...	4,306
Shops and Municipal Committee Property ...	3,819	Public safety	2,950
Grants and subscription ...	1,166	Public health and convenience	7,272
Others	159	Public Instruction ...	5,312
		Others	611

The Farídábád Committee consists of nine members of whom four are nominated. The Zaildár, Khan Sáhib Mustafa Hussain, has been President for many years. Farídábád.

The chief items of account in 1910-11 were :—

INCOME.	Rs.	EXPENDITURE.	Rs.
Octroi	6,149	Administration ...	1,757
Shops and Municipal Committee Property ...	596	Public safety ...	1,295
Grants and subscription ...	750	Public health and convenience	2,546
Others	7	Public Instruction ...	1,549
		Others	658

The Ballabgarh Municipal Committee consists of nine members of whom one (the Tahsildár) is *ex-officio* president and three are nominated. Ballabgarh.

The chief items of account in 1910-11 were :—

INCOME.	Rs.	EXPENDITURE.	Rs.
Octroi	12,952	Administration ...	2,113
Shops and Municipal Committee Property ...	612	Public safety	1,4 2
Grants and subscription ...	1,300	Public health and convenience	4,942
Others	1,447	Public Instruction ...	1,821
		Others	440

Both Najafgarh and Mahrauli used formerly to be municipalities, but in 1886 they were gazetted as notified areas. Their income amounts to about Rs. 1,200 and Rs. 1,800 respectively being derived almost entirely from house taxes: the expenditure which is kept just below the figure of the income is on conservancy and road repairs. The managing committees consist of four members. Najafgarh and Mahrauli.

Section F.—Public Works.

The Delhi District forms part of the Delhi Provincial Division of the Public Works Department and is in the immediate charge of a Sub-Divisional Officer working under the Executive The Buildings and Roads Branch.

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Public Works.

Engineer. The staff consists of Overseer (one), Sub-Overseers (four) and two Work Munshis on Rs. 30 per mensem.

In addition to Provincial buildings and roads (both main and feeder) there are also a large number of archæological buildings in the district, which are in charge of the Public Works Department, who carry out all the works in connection with their ordinary repairs and restoration in consultation with the officers of the Archæological Department. The following buildings and roads in this district are maintained by the Department :—

Imperial Buildings.

The Post Office, Delhi.
The Telegraph Office, Delhi.
The Post Office, Ballabgarh.
St. James Church, Delhi.

Provincial Buildings.

All Civil Courts at Delhi, Ballabgarh and Sonepat.
All Police buildings.
Normal School and Government High School buildings.
All Cattle Pounds.
The Circuit House.
The Commissioner's residence and office.
The residence of Deputy Commissioner and District Judge.
All archæological buildings at Delhi, Humayun's tomb.
Nizám-ud-Din, Safdar Jung, Qutb Minár and Tughlakábád, etc.
The Jail and Reformatory School.

Provincial Roads.

Delhi-Muttra road with all Railway-Approach roads, Delhi-Gurgáon road, Grand Trunk Road with all Railway-Approach roads and Sonepat-Bahálgarh and Sonepat-Murthal link roads.

Feeder Roads, A Class.

Delhi to Qutb road.
Delhi-Bahádargarh road.

The Police buildings are repaired by the Police Department and all Civil Courts and cattle-pounds are repaired by the District Board, with funds placed at their disposal by the Public Works Department.

The District Board contribute half the funds required for maintenance of the A class feeder roads.

The Chief Provincial buildings recently built at Delhi are :—

Circuit House.
Commissioner's Office.
District Judge's residence.
Normal and Model School with boarding-houses.

The head offices of the Department are located close to the Post Office and include a small rest-house for the convenience of inspecting officers. The department is also in charge of three bungalows along the Grand Trunk road at Alipur, Bahálgarh and Larsauli.

THE IRRIGATION BRANCH.

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The Western Jumna Canal.

Delhi contains the headquarter offices of the Superintending Engineer of the Western Jumna Canal and of the Executive Engineer, Delhi Division of the same. The staff of the latter in the district consists of one Sub-Divisional Officer, one Deputy Collector and one Zilladár; the boundaries of the departmental division are not co-terminous with the district. The offices are located in the Civil Lines in a pleasant compound close to the Club and there is in the building comfortable accommodation for departmental officers on tour.

The Eastern Jumna Canal.

Although this canal is entirely in the United Provinces, the head office of the Lower Division is in Delhi (being located just to the north of Maiden's Hotel) because Delhi is conveniently situated for the supervision, more especially now that the light Delhi-Sháhdara Line has been constructed. The details of administration have no concern for this district.

The Agra Canal.

The new head offices of the Upper Division are now being built between the Commissioner's House and the Ridge. The superior staff consists of the Executive Engineer, an Assistant who lives at Okhla, and a Deputy Collector. The department have charge of three rest-houses at Okhla, Ali and Farídábád respectively.

Section G.—Army.

The Garrison and cantonment.

As a Garrison Station Delhi has led a somewhat chequered existence. A few years ago the station was commanded by a Colonel on the Staff but under the recent reorganisation scheme it is now merely an out-post of Meerut, as the troops are subordinate to the General Officer Commanding the Meerut Cavalry Brigade. Now-a-days the senior officer present through the medium of a (third class) Station Staff Officer commands the station, the present garrison of which is:—

½ Company Royal Garrison Artillery in the Fort Barracks.

2 Companies British Infantry do.

1 Regiment of Indian Infantry at Daryáganj.

1 Regiment of Indian Cavalry in the Rájpúr Cantonment.

In addition there is a small detachment of the Punjab Light Horse Volunteers and F Company of the 1st Punjab Volunteer Rifles (strength about 75) is recruited from and stationed in Delhi. With the troops of the regular forces are the usual medical, commissariat and other units.

The Rájpúr Cantonment is situate to the north of the Ridge and includes the Hindú Ráo estate: this cantonment has been reformed quite recently in order to provide accommodation for the Cavalry Regiment. In the rains the British Infantry on

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medical advice are moved into camp on the Ridge and Hindú Ráo's House is used as a sanitarium for the convalescents from the station hospital in the Fort.

Owing partly to the facilities for concentration and manœuvres and partly to ceremonial occasions the neighbourhood of Delhi is frequently the scene of concentration of large bodies of troops. There are regular rest camps at convenient intervals along the main roads and close to Tughlakábád is the rest camp in which the Field Artillery assemble annually for field firing.

A Recruiting Officer for Játs and Hindustání Musalmáns is stationed in Delhi: he enlists from 1,600 to 2,000 recruits per year but of these not more than 100 will come from the Delhi District and all but a few are Játs.

Section H.—Police and Jails.

Police.

The district lies in the Eastern Range under the control of the Deputy Inspector-General of Police, whose headquarters are at Ambala.

The police force is under the command of a Superintendent whose immediate subordinates are at least one Assistant Superintendent and a Deputy Superintendent, one of whom is in special charge of the city. The total strength is 1,156, made up of 2 Inspectors, 27 Sub-Inspectors, 110 Head Constables, 985 Foot Constables and 28 Sowars. The rural police are in the special charge of two Inspectors with their headquarters at Sonepat and Ballabgarh respectively and are distributed amongst 10 thanas as follows:—

Tahsil Sonepat.	*Tahsil Delhi.*	*Tahsil Ballabgarh.*
Larsauli	Alipur.	Mahrauli.
Sonepat.	Nangloi.	Faridábád.
Ráí.	Najafgarh.	Ballabgarh.
		Chhansa.

In each thana are one Sub-Inspector, 2 Head Constables and 10 Foot Constables, but at Larsauli (which is the most populous Thána) there is an extra Sub-Inspector and two extra Constables, as there more than 100 cases are reported per year. In addition there are seven outposts at Maqbara Paik, Tibar, Fatehpur Beri, Páli, Dhauj, Manjhauli, and Badarpur and four road posts at Sarái Sítá Rám, Safdar Jung, Nizám-ud-din and Sikrí.

For Delhi city there are three large Thanas—Kotwálí, Sabzimandi and Paharganj. In the Civil Lines are spacious police barracks where the Reserve, Armed Reserve and recruits are accommodated.

The force is recruited locally and also has a fair proportion of Punjabi Muhammadans. The men are trained under the supervision of the Reserve Inspector and ½ per cent. of the force is sent annually for a course of instruction at the Phillaur School. CHAP. III. H. — Police and Jails.

The finger print system is freely used for the identification of criminals. The prints are taken and classified by trained recorders under the control of the Court Inspector.

Cattle Pounds.

There are cattle pounds under the Police charge established at all the rural Thánas and also at Nizám-ud-din, Basant, Badarpur, Mahrauli and Dhauj.

Village Watchmen.

Chaukídárs are employed in reporting and preventing crime, reporting vital statistics, and in various other ways; the number in each village is determined by the size of the village and the behaviour of the inhabitants. There are in all 944 *chaukídárs*, an average of 1·22 men per village. The largest establishments are in Narela and Mahrauli which have 2 *dafadárs* and 10 *chaukídárs* each and Fatehpur Biloch with 1 *dafadár* and 10 *chaukídárs*: in the ordinary villages there is one *chaukídár*, but very small villages will often share one with their neighbours.

The distribution among the Tahsíls is Sonepat 346, Delhi 306, and Ballabgarh 292 and among villages as follows:—

1.	Villages with one	*chaukidár*	...	514
2.	Do two	*chaukidars*	...	93
3.	Do three	*do*	...	23
4.	Do four or more	*do*	...	26
5.	Villages sharing a	*chaukidár*	...	113
6.	Municipal villages		...	4
		Total		773

The distribution of the more important castes among the *chaukídárs* is Fakírs 164, Gújars 77, Bráhmans 67, Sheikhs 62, Jogis 63. Gújars of course are to be found only in Gùjar villages or hamlets near Delhi.

The pay ranges from Rs. 24 to Rs. 36 per annum, though in a few villages it is lower. *Dafadárs* receive between Rs. 72 and Rs. 96 per annum. Small gifts in kind are made to the *chaukídár* in some places on the occasion of weddings, etc., but the custom is not general.

Criminal Tribes.

Kanjars and Sánsis and Báwarias are registered in this district under the Criminal Tribes Act XXVII of 1871. There are 223 Kanjars and 5 Báwarias on the register. Of this number 140 Kanjars and the 5 Báwarias are exempted from the operations of the rules under the Act relating to surveillance.

The District Jail.

The Jail which is situated just outside the Delhi gate on the road to Muttra consists of one large enclosure (which in former days was a *sarai*), a garden and buildings for the officials, the

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whole property extending to an area of 58 acres: it is officially denominated a first class District Jail. The Civil Surgeon is *ex-officio* Jail Superintendent and the staff consists of 1 Jailor, 4 Assistant Jailors, 3 Head Warders, 40 Warders, and 58 Convict Warders, overseers and *chaukidars.*

There is accommodation for 520 male prisoners (including three Europeans) and 16 female prisoners, but it is seldom that more than 480 prisoners are incarcerated at one time. The health of the prisoners varies with the seasons, but generally there are some 15 patients in the hospital of whom a third will be suffering from malaria fever. There is hospital accommodation for 50 patients. The principal industries which are carried on consist of paper making, lithography, weaving cotton cloths, and making cotton durries and *munj* matting. The products are mostly sold to the various Government offices but private individuals make purchases also generally of durries or *munj* matting, both of which are of excellent quality. The financial profit in 1910 was Rs. 8,000. The total Jail expenditure is Rs. 46,400 so that is costs roughly Rs. 90 a year to maintain a prisoner.

The Reformatory School.

This institution has appropriated the buildings of the late Lunatic Asylum, whose inmates have been transferred to Lahore, and is situated outside the Delhi Gate : it adjoins the District Jail. The buildings are of Delhi stone and are substantial and well built: they include barracks, separate cells or cubicles, a school room, office and work sheds. Established on the 1st October 1903, it has accommodation for 138 boys, excluding the hospital which has 10 beds. The institution is managed by a superintendent and committee of visitors, composed of the Commissioner, the Divisional Judge, the Deputy Commissioner, Civil Surgeon, Executive Engineer, Inspector of Schools, Superintendent of Police, two members nominated by the Municipal Committee and three European and two Indian non-officials. Meetings are held monthly for the transaction of business. The financial control of the institution is vested in the Director of Public Instruction, Punjab, who is Inspector General within the meaning and for the purposes of the Reformatory Schools Act. The standard of general education is that prescribed for indigenous schools and the industries taught are carpentry, tailoring, shoe-making, weaving, cane and bamboo work, blacksmith's work and gardening and agriculture. All articles manufactured, such as tables, almirahs, boxes, dusters, cotton and woollen cloth, tape, boots and shoes, file and waste paper baskets, peon's liveries, police uniforms, etc., are either supplied to Government offices or sold to the public. The boys are treated as far as possible as in ordinary schools, every effort being made to inculcate good principles and eliminate the penal element; they are sent out for walks on Sundays and holidays and specially well conducted boys are permitted to visit the bazar and other places under the charge of a teacher. An hour daily is

devoted to drill and gymnastics, and cricket, football and native games are played. The average number of inmates is now about 135, that is to say, up to the full accommodation.

Of the 45 boys who have been so far discharged on completion of terms of detention or on attaining the age of 18 years, 35 are doing well, 2 indifferently, 5 are in Jail, 2 are dead and 1 is not traceable. Every effort is made to keep in touch with boys for three years after discharge. The health of the boys has always been good, as only three deaths have occurred since the reformatory was started.

The buildings include suitable accommodation for the Superintendent and officials.

Section I.—Education and Literacy.

Literacy. (Table 50, Part B.)

The figures in the margin show the principal statistics of literacy as ascertained at the 1911 Census. A comparison with the statistics of 1881 shows that the literate males have doubled since then and the literate females are six times as many, having doubled in numbers since 1901, a striking testimony to the increase in education in these years. The general percentage works out to 5·2, literate and the Tahsil details are Sonepat 2·5, Delhi 11·2 and Ballabgarh 3·0. Of the different religions the Sikhs seem to b ethe most enlightened, as 38 per cent. are literate, but the community is a small one with very few females and mostly adult immigrants. Christians come next with 32 per cent. but of course education is an initial step to conversion and the community are under special control in this direction. Of the Jains, a small and wealthy community, 29 per cent. are literate; of the Hindus 4·7 per cent. and of Muhammadans 5·5 per cent. are literate: one would have expected the difference to be wider, but of course a larger proportion of the Hindus are village rustics.

	Males.	Females.
Population	363,238	294,366
Literate	33,328	3,692
Do. per cent. ...	9·2	1·3
Do. children between 10 and 15 years per cent.	6·1	1·4

Scripts in use.

In 1901 the main scripts in use with the percentage of literates who could read them were Urdu 47 per cent, Hindi 29 per cent., Lande 22 per cent, and English 15 per cent. Of the literacy in English about three-fourths were Hindus and one-quarter Muhammadans. Lande is the language used by the Jains.

Indigenous Schools.

The indigenous schools are of four kinds:—

1. *Maktabs* where Urdu, Persian and Arabic are taught.
2. *Chatsals* (from *chatta*, a school boy) where Hindí is taught.
3. *Pathshálas* (from "*Path*" reading) where Nágrí or Shástrí is taught.
4. Schools in which English is taught, together with other subjects like Hindí, Nágrí, etc.

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Maktabs.

Maktabs, where Urdu and Persian are taught, are generally started by some individual who, to educate his son, has to employ a teacher: others, who wish to have their sons educated too, send their boys and give the teacher a trifle according to their means. Boys come to *Maktab* early and stay all day with one short break for food: now-a-days after three years' instruction the pupils will join a regular school.

Muhammadans who wish their children to have a finished religious education send them to the *Muazzins* at the mosque, where they study the Arabic alphabet and the Kurán. A man who learns by heart the whole of the Kurán is rewarded by being styled Hafiz. The teachers in lieu of fees receive offerings. In some of these schools very learned maulvís and theologians teach Arabic, Islámic theology or divinity and pupils from even distant countries receive instruction and are granted *sanads* of learning (*Dastár-i-Fázilát*).

Chatsals.

The Chatsals or Hindi Schools are generally held at the house of the Pádha, if not at the Chaupál or other public place. Such schools are attended mainly by banias, as the instruction of the pupils is confined to accounts. The boys first learn by rote the multiplication table (*pahara*) and then proceed to learn the letters which they trace in the dust with a blunt reed. After this they are promoted to the use of the oriental substitute for a slate, *i.e.*, the dust board. Discipline is somewhat strict as may be instanced by the fact that each boy on arriving is given a number and is released from his studies in his turn. The teacher receives payment in kind (gram, sugar, etc.,) monthly and also a fee from each boy at every stage of his progression. In the larger villages the teacher is a permanency, but there are also *itinerant* teachers who follow the local demand. The boys on acquiring sufficient knowledge take their places in the family firm.

Pathshalas.

Pathshala Sanskrit Schools.—A pandit teaches young bráhmans from 15 to 20 years of age in a local Mandir. The pupils, called *Vidyarthis*, live by begging in the neighbourhood. Nothing but Sanskrit is taught.

English Schools.

School in which English is taught have been started very recently and exist chiefly in Delhi and Sonepat. First Urdu is taught for some 3 years by which time the brain is ready to tackle English in very elementary form.

Educational system.

A boy when about five years of age enters the lower primary department attached to a local school: after passing the third class examination he is admitted to the 4th class or upper primary department of a Vernacular or an Anglo-Vernacular School. The upper primary course is, as a rule, completed in two years, after which boys join the Vernacular or an Anglo-Vernacular middle department, the course of which extends over three years. The next stage is the High School where students are prepared for the Matriculation Examination of the Punjab University, the course lasting at least two years. The students who are successful in they

Matriculation examination can then join one of the colleges affiliated to the Punjab University with a view to obtaining University degrees.

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Education and Literacy.
School (Rural).

The following list comprises in Primary and Middle Schools maintained by the local Boards in the rural district :—

Kind of School.	Village in which situate (and building utilised in brackets). Sonepat.	Delhi.	Ballabgarh.	Remarks.
Boys' Primary (Vernacular).	Alerna ... (C)	Aliganj ...(D B)	Atali ... (R)	*Abbreviations.* M.—Municipal. D.B.—District Board. P.—Private. R.—Rented. C.—Chaupal.
	Barwasani ... (R)	Alipur ... (C)	Bhopani ...(D B)	
	Bhatgaon ... (C)	Arabsarai ... (R)	Chhainsa ... (C)	
	Bighau ... (R)	Badli ...(D.B)	Chiragh Delhi (D.B)	
	Ganaur ...(D.B)	Bakhtawarpur (D.B)	Dhoj ...(D.B)	
	Garhi Brahmnan (R)	Bawana ...(D.B)	Dialpur ... (C)	
	Halalpur ...(D.B)	Bijwasan ...(D.B)	Fatehpur Taga (C)	
	Jakholi ...(D.B)	Burari ...(D.B)	Gaunchhi ...(D.B)	
	Jaunti Kalan (R)	Chhaola ...(D.B)	Kabulpur Bangor (C)	
	Juan ... (R)	Diehaon ... (C)	Manjhaoli ... (P)	
	Kheora ...(D.B)	Dhindasa ... (C)	Masjid Moth (D.B)	
	Kundal ... (D)	Guwanhera... (C)	Mohina ...(D.B)	
	Larsauli ... (C)	Hashtsal ...(D.B)	Molarband ... (C)	
	Mahra ... (R)	Indarpat ... (R)	Paota ... (C)	
	Mailana ...(D.B)	Jaunti ...(D.B)	Sibi ...(D.B)	
	Mohana ... (C)	Kair ... (C)	Sikri ...(D.B)	
	Murthal ...(D.B)	Kanjhaola ...(D.B)		
	Nahri ...(D.B)	Karala ...(D.B)		
	Nangal Kalan (D.B)	Kherakalan (C)		
	Pinana ... (C)	Maipalpur ...(D.B)		
	Pugthal ... (C)	Mitraon ... (C)		
	Purkhas ... (R)	Mundka ...(D.B)	Ballabgarh...	
	Rath Dhana (D.B)	Nangal Reah (C)		
	Rohat ... (C)	Nangloi ...(D.B)		
	Tháru Udhepur (C)	Naraina ...(D.B)		
		Narela ...(D.B)		
		Puth Kalan (R)		
		Puth Khurd (C)		
		Rani Khera (P)		
		Sahibabad ...(D.B)		
		Tihar ...(D.B)		
		Tikri Kalan (D.B)		
		Ujwa ... (C)		
Girls' Primary (Vernacular).	Sonepat ... (R)	Najafgarh ...(D.B)	Faridabad ... (R)	
Boys' Middle School (Vernacular).	...	Najafgarh ...	*Ballabgarh (M.B)	*With a Nagri branch school.
			Faridabad ...(M.B)	
			*Maharauli...(D.B)	*With a branch school.
Anglo-Vernacular Middle School.	Sonepat ...	...	...	
Mission (Primary)	...	...	Faridabad...(B.M.)	Aided low caste.
"	...	...	Fatehpur Baloch (B.M)	Low caste.
"	...	...	Fatehpur Beri	S. P. G. Unaided.
"	...	...	Shahpur ...	S. P. G. Low caste.

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Education and Literacy. Schools (City).

Within the city the Municipal Committee maintain one girls' school, one Anglo-Vernacular Primary boys' school, five Branch Schools and one Industrial Middle school. There are many private institutions to which the Committee gives grants: there are also five high schools and two colleges which are described further on.

School Children.

Recent returns given by the Education Department show that of the boys of a school-going age as many as 14·7 per cent. are receiving education at school and 1·7 per cent. of the girls; the general percentage being 8·7 per cent. Of course these figures do not include the many children receiving some form of tuition in the indigenous schools described above.

Schools for Special Classes.

Schools for special classes are all private schools supported by the subscriptions and donations of the richer members of the class in question: as elsewhere creed is the determining factor in the constitution of the society. The Jains have the Jainí Patshála in the city, the Muhammadans have the city Islámia schools and four small Islámia schools in the district and the Punjabi Muhammadans have a school of their own. All but the latter are very petty institutions with at present about 20 boys in each but the Punjabi Muhammadans are an enterprising race of traders who, knowing the value of education, are not disposed to trifle with the subject. The school is held in the Upper story of some of their buildings near the Sadr Bridge. The staff consists of 8 teachers and there are 125 boys learning. The curriculum includes English, Urdu, Punjabi Native Accounts, Typewriting and Commercial Geography. The annual expenditure is about Rs. 4,000.

Schools for Depressed Classes.

The education of the low caste boys is entirely in the hands of the Missionary societies because neither Government nor private individuals care to open such schools and the Christian religion enjoins help to the humblest. The Ballabgarh Tahsíl alone is the field of operations and primary schools are maintained by the S. P. G. (Cambridge) Mission at Fatehpúr Berí, Mahraulí and Sháhpúr; by the Baptist Mission at Ballabgarh, Farídábád and Fatehpúr Biloch. The boys are mostly Chamárs with a few Mehtars, Kolis and others.

FEMALE EDUCATION.

Female education has been of slow growth but a distinct movement in that direction is visible: the percentage for educated females in schools is now 1·1.

The Hindus have six regular schools in the city and there are six schools maintained by the District Board outside the city, almost entirely attended by Hindu girls. The only Muhammadan Zanána school is one maintained by the Delhi Municipal Committee: the Muhammadan girls generally read the Kurán and Arabic or Urdu at home in preference to attending school. Among the

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Hindus too many do not send their girls to schools, but have them taught Nágrí at home. The S. P. G. and Baptist Mission societies have several middle and primary schools and their ladies often visit respectable families and teach the rudiments of reading and writing to elderly women.

Hindu Girls' Schools.

The six Hindu girls schools are :—

(1). *The Indra Prastha Hindu Girls' Pathshála*—At Chhipiwára with 210 girls distributed over 6 classes (middle standard) was founded in the year 1905 through the exertions of the members of the Theosophical Society, Delhi. It is controlled by a board of trustees, and a managing committee; a European Lady Superintendent is in charge of the girls. The staff consists of seven teachers: the approximate annual expenditure is Rs. 4,350 met by a Municipal grant and subscriptions and donations. The school has a building of its own given by the late Lálá Bálkishan Dás, a zealot of the Theosophical Society.

(2). *The Sundar Nanhi Primary Girls' School*—In Dariba Kalan was opened in 1906 at the instance of R. B. Lálá Ságar Chand, B. A., a retired Inspector of Schools, and is attended by 50 Hindu girls. The staff consists of three teachers, and the annual cost of about Rs. 900 is met by the founder, and a Government grant.

The other four schools are maintained by the Arya Samáj in different quarters of the city.

Muhammadan Girls' Schools.

The Delhi M. B. Islamia school contains about 70 Muhammadan girls distributed over 5 classes. The annual expenditure is about Rs. 1,350.

District Board Girls' Schools.

The 6 District Board schools are at (1) Mahraulí, (2) Chirágh Delhi, (3) Farídábád, (4) Pálam, (5) Najafgarh and (6) Sonepat; a teacher and a caller are provided in each school in the curriculum of which needle work finds a place. About 150 girls are under instruction at a cost of about Rs. 2,000 a year.

Notable Education Institutions.

The more notable educational institutions are described below, the Government, Mission, and pirvate establishments being described in turn :—

The Government High School, Delhi.

The premises of this institution occupy a space of about $3\frac{1}{2}$ acres. The building consists of an oblong hall, containing a library, a large examination hall, and 7 fair sized class rooms, besides rooms for the various teachers.

It was originally used as the library of Dára Shikoh, son of Emperor Sháh Jahán, and afterwards as the residence of Aliwardi Khán, the Mughal Viceroy of the Punjab, but from the time of annexation up to 1842 it was used as the Residency;

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from that time till the mutiny it was occupied by the old Delhi College. For nine years after the mutiny the building was used as an artillery barrack after which it was again occupied by the old Delhi College. On the abolition of this institution in 1877 the building was handed over to the District Board for a school, but in 1886 the control passed to the Municipality, and finally the Government High School was established in 1905, when the policy of having a model school supported by the Government at the head quarters of every district in the Punjab was initiated.

The school, which is an Anglo-Vernacular High School, has a staff of 18 teachers under the control of a European Head Master. At present the school prepares only for the Matriculation Examination in Arts and for the Clerical and Commercial Examination of the Punjab University, but extension is under contemplation. There is in the compound a boarding house with accommodation for 52 boarders and additional space for 50 boys is rented. The school building has class room accommodation for about 300 boys, but the actual enrolment is about 325 boys who are distributed among the three classes of the middle department, two special classes, two classes of the high department and two classes of the Clerical and Commercial department. The primary department is not controlled by the High School, but is attached as a practising school to the Normal School. Now located in the same ground.

The Head Master has his residence on the compound.

The tank in the school compound has now been repaired and converted into a swimming bath : the school has also got a fine large playground and a very fairly equipped gymnasium.

A marble tablet has been placed at the gate of the High School showing in a very brief form the history of the building. It runs thus :—

Library 1637 ; Mughal Viceroy 1639 ; Residency 1803 ; College 1843-77 ; District School 1877-1886 ; Municipal Board School 1886-1904

The annual expenditure in 1908-09 was Rs. 22,466 and the fees paid by the pupils amounted to Rs. 9,366.

The Normal School, Delhi.

The Normal School for training masters was established at Delhi in 1860 and in 1864 was amalgamated with the sister institution at Ambala. The school is intended to train and instruct school masters and candidates for teacherships in the primary schools of the Delhi Division. The course lasts for two years, but the candidates who have finished the course may enter for the certificate examination after one year only. This school was formerly located in a hired building known as the Kalán Mahal near the great mosque, but in 1906 was transferred to a new building in the compound of the Government High School. The building is an excellent one containing 14 rooms, of which a central one is a museum stocked with suitable illustrative models,

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charts and maps, etc. There is a boarding house attached to the institution with four dormitories and accommodation for 80 boarders. The staff of the Normal School consists of a Head master and 7 other teachers: the students are selected by the Deputy Commissioners. There is a small Anglo-Vernacular primary practising school in connection with the Normal School, in which the students of the Normal School all take their turns as teachers under the supervision of one of the staff. The staff of the Model School consists of a Head master and four teachers.

All the students are stipendiaries. The number of stipends allotted to each district is Ambala 15, Delhi, Karnál, Gurgáon and Rohtak 10 each, and Hissar 5. Twenty stipends are at the disposal of the Inspector of Schools, Delhi Division.

The expenditure incurred in 1908-09 amounted to Rs. 16,744.

The Municipal Board Industrial Anglo-Vernacular Middle School, Delhi.

In January 1883, at the instance of Colonel Holroyd, Director of Public Instruction, Punjab, at a meeting held in the Town Hall, it was resolved (*i*) that it was highly desirable to establish a school of Industrial Art at Delhi, and that instruction should be given in the following branches:—Drawing, carpentry, wood and stone carving, plaster work and pottery, iron work and carpet weaving, (*ii*) that application should be made to the Municipality to supply the necessary funds, (*iii*) that a museum for the exhibition of specimens of various trades and arts of pure Delhi manufacture should be formed. On Colonel Holroyd's application the Municipal Committee voted a lump sum of Rs. 3,000 for initial expenses and a monthly grant of Rs. 250 for the establishment and the stipends to pupils.

The Managing Committee accordingly opened the school on the 1st March in that year in a house known as Amun-ján-ká-Diwán Khána near the Tháwur Masjid, with a staff consisting of a manager, 3 carpenters, a smith, a weaver, and a carpet weaver. The boys employed in carpet-weaving and smith-work were bhishtis, Chamárs and Christians.

The school was raised to the Middle grade in 1899 and is now assisted by the Education Department under the Municipal Committee of Delhi. The courses are the same as in the Railway Technical School, Lahore, and extend over 8 years. Besides some literary subjects joinery, carving, turning and drawing of all kinds (*i. e.*, free hand, model, scale and geometrical) are taught to the boys: a smithy has been recently started. The Industrial classes are inspected annually by the Principal of the Mayo School of Arts at Lahore. The boys, after passing the Middle Examination for the Industrial schools from this institution, continue their studies at the Mayo School, where they get a maintenance allowance of Rs. 10 each: scholarships are awarded from Provincial funds in the Upper Primary Department. The

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boys when they have finished their training find no difficulty in earning a livelihood from their crafts.

At the end of September 1908 the school was reorganised and it now has a graduate as Head Master, 5 other teachers, 2 carpenters and a blacksmith. At the time of reorganisation there were 94 boys on the rolls, but now there are about 200, most of whom are Muhammadans and none are Christians or Chamars.

The school is located in a rented building in Kundewalan near the Ajmere Gate, and costs the Municipal Committee in all about Rs. 415 per mensem.

St. Stephen's Mission High School.

The school was opened shortly after the Mutiny in connection with the S. P. G. Mission, Delhi. It is an aided Anglo-Vernacular High School, and has two branches connected with it teaching up to the 5th Upper Primary class. In December 1909 the number of boys in the High School was 658 and in the branches 222. The staff consists of 41 teachers, of whom only 8 are Christians. Three European missionaries take part in the teaching.

The school is housed in a rented building near the Mori Gate where it has a flourishing club, called the 'Star of Delhi,' which has been in existence now for over 25 years. The institution rejoices in a library and a reading room and has been allotted a play ground in the Queen's gardens. There are two boarding houses, one for Christians (41 inmates) and one for non-Christians (45 inmates).

St. Stephen's Mission College.

This institution was originally founded in 1865, in connection with the S. P. G. Mission school, to enable its students to continue their studies up to the Calcutta B. A. course : it was however practically in abeyance till 1881, when it was resuscitated by the Cambridge Mission. Meanwhile the old Delhi College having failed in 1877, the Mission perceived the opportunity of establishing a College to supply its place and, receiving encouragement from Government, the original plan was extended. With the help of a Government grant-in-aid the Mission were enabled to found a College and to put matters on a sound footing by 1882. In October of that year the College was affiliated to the Punjab University and received its charter, so now its students are prepared for the examinations of that University only. The College building near the Kashmir Gate was designed by Sir Swinton Jacob and was opened in 1891 by Sir James Lyall, the Lieutenant-Governor. Since 1906 new buildings have been added for the resident staff, the increasing number of resident students, and modern laboratories and lecture rooms. There were in 1910 168 students, of whom 64 were residents.

The European professors and the Principal are the resident members of the staff. The College is affiliated up to the M. A. standard in English, Sanskrit, Arabic, Philosophy and Mathema-

tics; up to the B. A. standard in the additional subjects of Physics, History and Economics, and to the Intermediate standard in Chemistry also.

The College has a reading room and library and a playground outside the Kashmir Gate in the Kudsia gardens.

The Anglo-Arabic High School, Delhi.

Immediately after the mutiny a school, at first supported entirely from the proceeds of the Ihtimád-ud-Daula Fund, was established on the ruins of the old Delhi College. Ihtimád-ud-Daula Nawáb Faiz Ali Khan, Prime Minister at the court of Oudh, had in 1829 endowed the Delhi College with the sum of Rs. 1,70,000. In 1872 it was decided that the income of the Nawáb Fund should be devoted to the education of Mussalmáns only and thus the school, now designated the Anglo-Arabic school, was established. Up to 1889 the limit of instruction was the Anglo-Vernacular Middle standard and the classes were held in a rented building in the city. During the eighties, the highest places in the province in the Middle school examination had been several times secured by the boys of this school, so in 1889 it was decided to raise the standard and to move to the present building Ghàzí-ud-Din Khan's Madrassa outside the Ajmere Gate, where the College endowed by Nawáb Fazal-i-Ali Khán had been originally located. This building is one of the old historical buildings, so the persistence of the Muhammadan community in restoring the school to its ancient home after so many years is noteworthy.

As during the last twenty years 173 students have passed the Entrance or Matriculation Examination, the school seems to have made a satisfactory progress and have justified its constitution.

The school is under the control of a committee of 16 members; Government being a trustee to the fund is represented by 4 official members and the remaining 12 (6 Sunnis and 6 Shias) are nominated by the Government from among the city notables. One of the non-official members acts as Secretary.

In 1907 the school was reorganised and brought on the list of aided schools. All the subjects prescribed by the Education Department up to the High Standard are taught and Arabic is compulsory. There are 2 branches for only lower Primary instruction in the city. The number on the rolls in 1910 was 680.

The staff consists of a Head Master and 22 other teachers. Religious instruction has been added to the curriculum of the school and is in charge of 2 Maulvis (one Sunni and one Shiah) both possessing Honor Certificates in Arabic and Persian.

There is also a boarding house for 57 boarders situate in the school compound, and a play ground with a gymnasium has been made by filling up the ditch and levelling the glacis.

The Anglo-Sanskrit Victoria Jubilee High School, Delhi.

The Anglo-Sanskrit school is maintained by the subscriptions of some Hindu gentlemen of Delhi and also receives grants-in-aid from Government and the Delhi Municipal Committee. It

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was established in 1869, and is now situated in a hired building in Mohalla Charkhiwalan near Chori Bázár.

The staff consists of 21 teachers. The total number of boys at the end of 1909 was 375. Games are played on the Municipal ground in the Queen's Gardens.

The Bengali Boys' High School, Delhi.

The Bengali Boys' School, a small one, was established in 1899 and is maintained by subscriptions, endowments and grants from the Provincial and Imperial Funds. It is held in a rented building opposite the parade ground. The staff consists of 7 teachers, and the number of scholars at the end of 1909 was 51 of whom 36 were Bengalis.

The Tibbia School, Delhi.

The Tibbia School was established in 1891 by the late Hakim Abdul Majid Khan and is now managed by his brother. Instruction in the Unání System of medicine is imparted. In addition the institution has made provision for the teaching of English Surgery by appointing two professors of Surgery from amongst local practitioners. The course of study extends over 5 years. The school is situated in Billimáran street, and has a Boarding House containing 45 inmates, all out-station pupils. There are 105 pupils of whom 99 are Muhammadans. The Municipal Committee give a *grant* of Rs. 125 per mensem.

The Anglo-Vernacular Himayat-ul-Islam Middle School.

The Himayat-ul-Islam school is held in a rented building in the Sítá Rám ká bázár. The expenditure is met from the endowment fees and subscriptions The number of boys on the rolls is 112, mostly Muhammadans.

The Hindu College, Delhi.

This College was established in May 1899 for the purpose of giving a cheap but efficient secular education with sound religious instruction, according to the principle of the Sanatan Dharm. It is managed by a Board of Trustees registered under the Joint Stock Companies Act. It teaches upto the B. A. standard of the Punjab University to which it is affiliated, its students (as in the case of St. Stephen's College) being prepared for the examinations of the Punjab University. In addition to the subjects prescribed by the University, all Hindu students are required to attend a religious class once a day. It is maintained by subscriptions from the Hindu public and endowments. The staff consists of 6 Professors, and as the number on the roll at the end of 1909 was only 18, the institution does not seem to be thriving.

The College has a building of its own opposite that of the St. Stephen's Mission College, Delhi.

Expenditure on Public Instruction (Table 52, Part B).

The detailed figures in the table show how steadily the expenditure in education is increasing. During the past twenty years it has risen from 1¼ to two lakhs in round figures. Of this sum the following amounts are obtained from the sources detailed. Provincial Revenues 50,000, District Funds Rs. 33,000, Municipal Funds Rs. 19,000, Fees Rs. 43,000, Subscriptions Rs. 18,000, and from Endowments, &c., Rs. 35,000.

CHAP. III. I.

Printing Presses.

Considering its size and importance Delhi is singularly badly served in the matter of presses and publications, in that quality has been made to give place to quantity. The only English Press of an import is that of the *Morning Post* of Delhi, an English daily started in 1896, which has never yet attained a position of any moment in the Indian newspaper world.

Other presses where English is printed are:—The Sultan, the Imperial Medical Hall, the Royal Coronation and the Delhi Central presses. Of these the last-named is the most efficient and important, but there is little work for them, except the printing of petty circulars and advertisements. The Municipal Committee have a press of their own in which all English and vernacular printing is done, so the private presses do not even have the benefit of the Municipal custom.

Of the Urdu presses four are fairly well known :—The Curzon Gazette ; Asná Ashri, Rafiq ; the Insáf ; Al Haqq are newspapers published by presses of the same name.

A paper called the *Akash*, printed at the M. C. Press, led an unsavoury existence for the years 1908-09, but since the editor was arrested for sedition the paper is defunct. There are in addition some sixty more Urdu presses of a very humble type : many are of mushroom growth, being no more than a small room in which enough printing materials are collected to enable the owner to earn perhaps Rs. 20 a month. These presses really live by printing pamphlets (*risála*) generally monthly pamplets, some of which are on matters of general interest : most, however, are of a religious nature, too often scurrilous publications fomenting ill-feeling.

Nágri is printed by the Sálár-i-Hind Press which also issues an Urdu pamphlet called *Risála Insáf* (justice) which has a considerable circulation amongst women.

Section J.—Medical.

Medical Civil Hospital.

Excluding military hospitals, the Civil Surgeon has control of all the official medical institutions in the district : the salient statistics of the civil hospitals are tabulated below :—

NAME OF HOSPITAL.	AVERAGE EXPENDITURE IN ROUND FIGURES. Establishment.	Medicine.	Miscellaneous.	Total.	Accomodation.	REMARKS.
1. Civil Hospital	12,400	4,000	900	17,300	140 beds	
2. Pahar Ganj	950	1,000	350	2,300	out-door.	
3. Sadr, Male	1,300	700	47	2,047	,,	
4. ,, Female	...	...	...	...	...	
5. Lal Kua, Male	1,200	700	300	2,200	out door.	
6. ,, Female	840	365	400	1,605	,,	
RURAL.						
1. Sonepat	2,400	650	400	3,450	10 beds.	
2. Narela	500	300	110	910	out-door.	
3. Najafgarh	964	400	137	1,501	,,	
4. Mahrauli	700	375	150	1,225	,,	
5. Faridabad	600	450	123	1,173	,,	
6. Ballabgarh	1,2 0	500	200	1,900	6 beds.	
Grand Total ...	23,054	9,440	3,117	35,611	...	

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The most important hospital is the Delhi Civil Hospital located on the north side of the Jama Masjid which is a convenient and central situation. The staff consists of a Senior Assistant Surgeon, 3 Sub-Assistant Surgeons, of whom one is a female, 11 Compounders (two females), and an English nurse. The Sonepat and Ballabgarh hospitals are small institutions under the management of an Assistant and a Sub-Assistant Surgeons respectivey. The remaining city and rural hospitals are mere dispensaries where outdoor relief is given to patients. The total number of operations performed in 1908 was Rs. 8,576, being an increase of more than a thousand on the figures of previous years. The departmental hospitals for the Jail prisoners and the Police are under the immediate charge of a Sub-Assistant.

Military Hospitals.

There are three military hospitals: the Station Hospital for British Troops in the Fort with which is associated the convalescent sanitarium on the Ridge known as Hindu Rao's House: the Indian Infantry Hospital at Daryaganj; the Indian Cavalry Hospital in the Rajpur Cantonment. At these hospitals none but troops or their followers are treated.

The Station Hospital is in charge of R.A.M.C. officers and the regimental hospitals are in the charge of officers of the I.M.S.

St. Stephen's Mission Hospital.

In Chapter I (*c*) the early history of the medical policy of the St. Stephen's Mission has been traced.

Medical work among women continued to increase till it far outgrew the capacity of the Chándni Chauk Hospital to cope with it, and a new larger hospital in time became a necessity. A generous gift from Government of a site of land on the Tís Hazárí Maidán enabled the Mission to erect a building and in December 1906 its foundation stone was laid by Lady Minto. The Chandni Chowk Hospital was sold and with the proceeds the new buildings, which were opened in January 1909 by Lady Dane, were erected. The statistics for that year show that there were 9,477 out-patients and 1,069 in-patients; the latter is a large increase on the former numbers, the new wards allowing of the admission of 60 as against 25 in the old Hospital: one block, that for nurses, has just recently (1912) been opened.

Baptist Mission Hospital.

The medical mission started by the Rev. W. Carey, M. B., (*supra Chapter I* (*c*)) in 1876 has since developed considerably. It is now being carried on at a cost of over Rs. 1,500 per annum in premises adjoining the hall on the maidan by a trained Sub-Assistant, Mr. S. David, and a Compounder, under the superintendence of the Rev. F. V. Thomas, B.A., M.B., from Palwal. More than eighteen thousand cases were treated during the year 1909.

Victoria Zenana Hospital.

To perpetuate the memory of the Queen-Empress Victoria in Delhi the Victoria Zenana Hospital has been built and endowed by private subscriptions which originally amounted to about Rs. 1,50,000. The building is an interesting specimen of present day Anglo-Indian architecture adapted to harmonise with its

surroundings, more especially the great Jama Masjid. The foundation stone was laid by Lady Rivaz in 1904, and the building was declared open by Lady Minto in 1906. The institution is under the control of a Committee consisting of the Senior Civil Officers, the Civil Surgeon, etc. The hospital is in the immediate charge of a Lady Superintendent with a suitable staff of assistants, nurses, etc. The building is double-storied and contains an operating room, dispensary and other medical necessities. There is accommodation for 60 in-patients; during 1909 there were 388 admissions, and 6,984 out-patients received relief. CHAP. III. J. — Medical.

Lunatic Asylum. There is no lunatic asylum now, as the inmates of the old asylum have been transferred to Lahore and the buildings utilised as Reformatory.

Vaccination. The special vaccination staff consists of one Superintendent and 10 Vaccinators some of whom are constantly on tour in the rural district. The table shows that nowadays some 23,950 people are vaccinated yearly, the special drop in 1908-09 being due to the unusual prevalence of malarial fever. In 1908 the cost of the Department amounted to Rs, 3,700, of which the cost of establishment amounted to Rs. 2,850 and lymph Rs. 300, the cost per individual vaccinated amounts to about annas 2 pies 6. The lymph used is glycerine lymph prepared at Amritsar or Murree. In Sonepat town and Delhi city vaccination is compulsory.

Sanitation. The sanitary schemes and arrangements within Municipal areas have already received notice. In the rural district efforts are made to reduce malarial fever to a minimum by draining the country: the realignment of the Western Jumna Canal involving the abolition of swamp cultivation is the most important Sanitary measure which has been carried out in the mofassil. In the villages little can be done and nothing would have been done if plague had not been so rife of recent years. The plague officials are energetic in disinfecting localities, where plague has appeared and the villagers acquiesce in such action. Efforts are made to induce villagers to stack their manure at a distance from the dwelling houses but old customs die hard.

Quinine is now distributed through various government officials so as to be within reach of all: even petition-writers attached to the Tahsils are given a quota to dispose of. The really poor can obtain it free.

Map
OF
DELHI DISTRICT.

(No. 3).

Scale—8 Miles = 1 Inch.

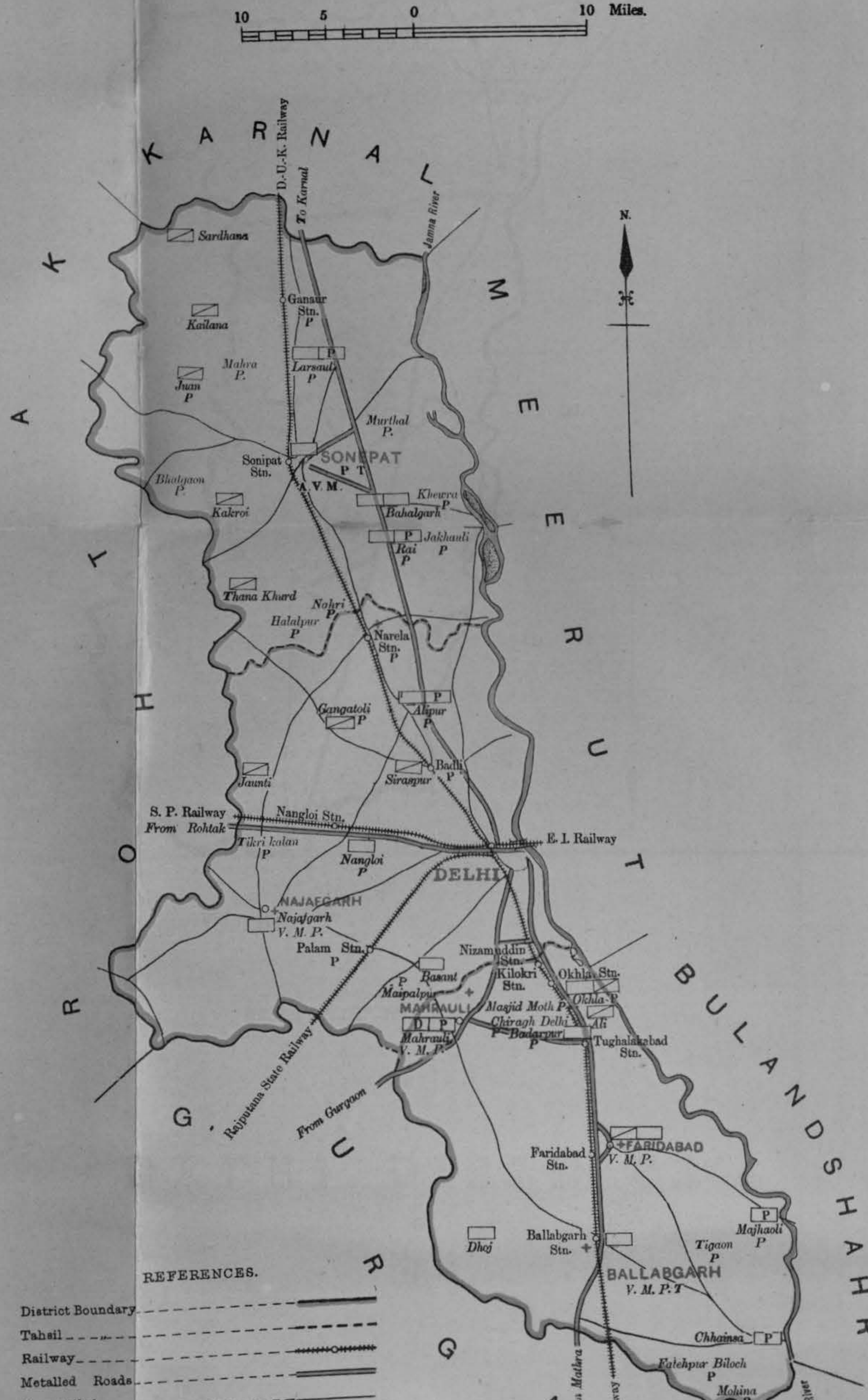


Photo.-Mechl. and Litho. Dept., Thomason College, Roorkee

Zinco. July, 1913.—No. 600-2=600.

CHAPTER IV.—PLACES OF INTEREST.

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Places of Interest.

Sonepat.

Sonepat is a town of great antiquity and was founded apparently by the early Aryan settlers. Popular tradition, accepted as true by General Cunningham, identifies it as one of the five *pats*, mentioned in the Mahábhárata as demanded by Yudisthira from Duryodhan as the price of peace. Its foundation would thus be placed before the war of the Mahábhárata. The point is however doubtful, and Sir Sayad Ahmad believed that it was founded by Rájá Soni, 13th in descent from Arjuna, brother of Yudisthira. The town is picturesquely situated on the side of a small hill which, standing out as it does in a level plain, is evidently formed from *debris* of buildings, that have crumbled to decay on this one site during the town's long life of 3,000 years. In 1866 the villagers, while digging a well from the top of the hill, excavated from a depth of some 70 or 80 feet below the surface a terra-cotta figure of the sun in perfect preservation. General Cunningham pronounced this image to be at least 1,200 years old. In 1871 a hoard of some 1,200 Greco-Bactrian hemi-drachms were also unearthed there.

The town contains 13,000 inhabitants and is situated 27 miles north of Delhi: it is approached from the Grand Trunk road by two metalled roads from the north-west and south-west, each about 5 miles long. There is a Railway station on the Delhi-Umballa-Kalka Railway.

The town is surrounded by trees and in the centre is an eminence on which are situated the Tahsíl, the Thána and the sub-registrar's office; the former is flanked by four small towers. On this eminence there is a house which is used as the tahsíldár's residence and also the Municipal Hall where the Committee hold their meetings. Near the Tahsíl there is the school and boarding house.

There is outside the town a dispensary and also a veterinary dispensary with stables in which are kept two Arab stallions and a donkey stallion.

Other prominent objects in the town are the two Saráogí's and the two Aggarwal Vaishnu's temples, whilst afar off the minarets of the new mosque form a conspicuous land mark. Close to the station is a suitable rest-house and beyond that again rises the chimney of the local ginning factory. The lower portion of the town, which is inhabited by Hindú shop-keepers, consistc, of streets which take the curve of the hill around which they pass: the houses are not so well built as one would expect to find in so thriving a community. There are no manufactures, but trade is considerable, as can be seen from the stacks of agricultural produce awaiting transport at the station during the busy season. The village is owned half by Játs and half by Muhammadans

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(Sayad and Patháns). The latter reside on the top of the hill in quarters called Kot and Mashed, the latter place meaning the "place of martyrdom," where it is said Nasír-ud-dín met his death at the hands of a Hindú Rájá. The municipal income averages about Rs. 22,000, the inhabitants pay Rs. 1,320 income-tax and the owners of the agricultural land are assessed to Rs. 9,400 land reveuue exclusive of canal dues.

Delhi City.

Delhi itself has grown to such a size that it can be described intelligibly only by compartments. It is situated on the right bank of the Jamná and is tucked away in the angle made by the river and the ridge. The main divisions working from the north are:—

(1). The Rájpúr Cavalry Cantonment including the Hindú Ráo estate.
(2). The Civil Lines.
(3). The City proper.
(4). The Fort.
(5). The Daryáganj Cantonment.
(6). The extra-mural Agricultural Land of Fírozábád and Khandrát Kalán.
(7). The Suburbs, Pahárganj, Sadr Bázár and Sabzímandí.
(8). The Gardens and Orchards.

The Rájpúr Cavalry Cantonment occupies the same site as was occupied by barracks before the mutiny and has been formed (since 1906 only) to accommodate a Cavalry regiment in accordance with the recent army reorganisation scheme. About 2 miles to the north along a good road is the amphitheatre at which in 1903 was read the proclamation of His Late Majesty King Edward in open Durbar and in which the Imperial Durbar of 1911 was held by the King-Emperor in person. The Cantonment includes the Circuit House and also the Ridge with its many famous monuments recalling the mutiny, such as Flag Staff Tower, Pír Ghaib, Hindú Ráo's House, the Asoka pillar and the Mutiny Memorial Tower: below the latter are the ruins of the Sammy House battery, so named after the temple alongside. The Cantonment contains the necessary residential quarters and lines with a polo ground, race course, and golf links also the old cemetery in which too many, alas, of the mutiny heroes are buried.

The civil lines lie wholly to the east of the Ridge and consists mainly of houses and compounds in the occupation of Europeans. To the extreme north are the ruins of the old magazine, situate on the bank of the river for the easy storage and transport of powder: south of that and still on the river bank is the Metcalfe estate with the prominent Metcalfe House in a deplorable state of decay. The most prominent buildings in the civil lines are

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Ludlow Castle, now used as a social club, the Commissioner's house, and Maiden's Hotel; the generality of new houses are well built and suitably lit and cooled by electric power; the roads are well kept and watered under municipal arrangements. Ludlow Castle and the Kudsia Bágh, a fine garden with pleasant lawns and avenues, mark the sites of the breaching batteries which were pushed up towards the Kashmíri Gate. Just outside this gate is the Nicholson Garden, an ornamental plot surrounding the statue of the fallen hero, whose grave is in the cemetery across the road. The police lines deserve passing notice: beyond them on the Tís Hazárí Maidán is the St. Stephen's, Mission Hospital. The city proper is entered by two main routes the famous Kashmír and Morí Gates: entering by the former one finds oneself in a small corner of the city which has been cut off from the main block by the railway, but nevertheless a corner which is of great interest. Here are the local courts of justice and halls of administration, St. James' Church with its conspicuous dome and cross, the St. Stephen's College, the Government School, Post and Telegraph offices, the gate of the old magazine with its inscription of honour and the very old cemetery.

The rest of the city is a business domain with fine broad main streets, from which branch off innumerable dingy tortuous back streets where the people live in tenements or houses, varying from squalor to luxury according to the position of the occupants. The railway station has a huge compound and very considerable platform accommodation, since the junction is quite the Crewe of Northern India: directly opposite is the Company Bágh, officially termed the Queen's Gardens ever crowded with pleasure seekers, who doubtless enjoy the restful green after the glare of the city streets: here is the Town Hall and also the statue of Her Late Majesty Queen Victoria which faces the Clock Tower in the Chándni Chauk. The Chauk is a long broad street divided down the centre by an avenue which gives shade to the hawkers, who exhibit their wares in quasi-permanent stalls: the Chauk itself is the principal business street in which are located the banks, the jewellers, the cloth merchants, the druggists, the railway agencies, etc., and even a theatre. To the north is the Fatehpuri Mosque and beyond this again the Khári Báolí Bázár where the grain merchants have a quarter of their own; hence the road passes out to the Sadr Bázár suburb. To the west of the Queen's Gardens and to the north of the Khári Báolí is the quarter in which the Cambridge Mission have made their settlement—a quarter which communicates with the civil lines *via* the Dufferin Bridge over the railway and through the Mori Gate.

From the Chauk the Jáma Masjid is reached by the Daríbá street, the home of the ivory carvers, and from the great mosque a road called Cháorí Bázár leads due west out of the city by the Ajmer Gate through the quarter famous for its metal work, where the gold and silver thread makers ply their trade. To the south

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of this road are the tenements of the humble and probably the only object of interest is the Kalán (or Kalí) masjid or black mosque, a beautiful old relic of Pathán architecture.

East of the Jáma Masjid are the open spaces, loosely termed the glacis of the Fort, on which parades are held: a prominent building to the south is the Victoria Zenana Hospital. The fort was the keep of Delhi whose walls made the city a fort in itself: as such it was the residence of the Moghal Kings and signs are not wanting to show that in days gone by the immediate entourage of the court enjoyed luxurious abodes and pleasure gardens. The wall is about $1\frac{1}{4}$ miles in circumference and on the east side where coincident with the city wall, it consists of a simple vaulted drop of 20 feet to the bed of the Jamná, the remainder being a masonry wall 40 feet high with a double tier of loop holes, and protected by a vaulted ditch 12 feet deep with a covered way and glacis. The two main gates, the Lahore Gate on the west and the Delhi Gate on the south, are protected by a rectangular masonry envelopes armed with ordnance, firing through embrasures. The flanks of these envelopes spring from the enceinte, which commands them by ten feet. On the north side is the important outwork of Selimgarh, separated from the enceinte by a what used to be small channel of the Jamná 30 yards wide, spanned by a masonry bridge. This work has an earthen parapet with stone revetment, 25 feet high. Its interior is commanded from the enceinte and the railway passes along the level of its *terre pleíne,* entering by the small masonry bridge on the west, and passing directly on to the main Jamná bridge on the east side. Within the fort is barrack accommodation for a force of about 500 Europeans: the guns which command the city and all approaches to the fort are of obsolete pattern, but doubtless efficient for any purpose for which they may be required.

The historical objects still remaining are the king's private apartments including the Hammám (bath-room), the Pearl Mosque, and the Diwán-i-Khas: also the *Naubat Khána* or hall of music and the Diwán-i-am, which were so wonderfully brought into use on the occasion of the State Ball in 1903. Of recent years there has been considerable activity in repairing the Pearl Mosque and other buildings where time or vandalism has caused deterioration, but it would be too expensive to restore them, so that they would bear any semblance of their former grandeur. The Hayat Bakhsh garden is now kept with great care: it is quite the finest garden in the whole of Delhi.

Passing out of the fort by the Delhi Gate to the south (the sentinal elephants carved in stone come as a surprise) the Daryáganj Cantonment is reached: it is not a very inviting locality, as the houses and gardens look very shabby and the only object of interest is the Zínat-ul-Masájid (Beauty of mosques) near the Khairáti (a minor) Gate.

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Leaving the city by the Faiz Bázár and Delhi Gate one finds oneself in the agricultural lands of Firozábád, a rich tract profiting by the city sullage. Here are the Jail and Reformatory. To the west one passes various Municipal institutions such as the slaughter houses and sewage farm in Khandrát Kalán, till one crosses the canal and Agra Railway to enter the suburbs.

Of the suburbs the first is Pahárganj in which is conspicuous the Sunnis' Idgah, a rival to the Jáma Masjid in popularity. This suburb, which includes Shídípúrá, is merely a collection of mean houses occupied as a rule by the lower castes. The Sadr Bázár suburb boasts of a station on the Great Indian Peninsula Railway, which however is mainly a goods station: alongside it is the power station of the Electric Tramways and Lighting Company which is well worth a visit. The Sadr Bázár is a busy spot and till recently included the wood depôt to which both fuel and timber are brought in barges on the canal. The principal traders are Punjábi Muhammadans who deal largely in hard ware. Visitors interested in horse flesh will generally find a few Kábuli horse dealers camping in the local saráís.

The Subzímandí as its name implies is the great vegetable market. Here too is a railway station on the Delhi-Umballa-Kalka Railway, also mainly a goods station, very convenient for the flour and cotton mills in the vicinity. The market was no doubt located here because the Delhi vegetables are mostly grown in the neighbourhood: the suburb is on the direct road from the rich canal irrigated tract, and is convenient for the cultivators of melons, etc., in the Jamná river-bed. It was at this spot that some of the fiercest fighting during the mutiny took place.

The Delhi gardens are on the fringe of the Sabzímandí and extend for some distance, the total area amounting to about 1,500 acres. Irrigation is obtained from the canal and fruits of all sorts are grown: in a few cases the owners regard them as pleasure gardens, but presumably enough produce is sold to cover the working expenses. The Roshanára garden in which is the tomb of Roshanára Begum, a daughter of Sháhjahán, is maintained at municipal expense as a pleasure garden: at any time of the year it is a beautiful spot which no visitor to Delhi should miss seeing. There are so many eminences in Delhi such as the Fort gate, the Jáma Masjid minarets, etc., that good views can be obtained from any quarter, but probably the best view is obtained from the top of the Memorial Tower on the ridge. From there Delhi and its environs are just as a map before one: across the broad Jamná the agricultural lands of the Meerut District are in view, the Railway bridge is a prominent object and far in the distance can be seen Humayun's tomb and the Kutab showing clearly against the sky.

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Places of Interest.
The neighbourhood of Delhi.

Any description of Delhi would be incomplete without a passing notice of some of the very interesting objects in the vicinity of the town.

Of these the foremost is the Kutb Minar, which has been already described in Chapter I.—History. Within a few yards of the Kutb is the celebrated iron pillar already described. On the other side of the Kutb is the Alái Darwaza, or gate of Alá-ud-Din Khilji. It was built about 1310 A.D. The building is a square of 34½ feet inside and 56½ feet outside; the walls being 11 feet thick; from the inner floor to the domed ceiling it is about 47 feet high. The corners are ornamented with a series of arched niches, which cut off the angles of the square, and so turned the support of the dome into an octagon. On each side of the gateway is a lofty door, those on the northern and southern sides being the loftiest. The doorways are most elaborately ornamented; each door is formed by a pointed horse-shoe arch, of which the outer edge is panelled. The whole face of the building is ornamented with elaborate chiselling, the most attractive features being the bands of inscription. A short distance away from the Kutb is the basement of another similar building, with the base considerably broader than the original. It was also designed by Alá-ud-Din Khilji, but unfinished at his death. Intermingled with the Muhammadan ruins round the Kutb are ruins of an ancient Buddhist temple, of no great value as works of art, but interesting as showing the existence of that religion at an early age in Hindustan. Adjoining the Kutb is the Kila Rái Pithora, the remains of an old Hindu fort, with the walls clearly discernible. The principal buildings connected with the Kutb have now been enumerated; but besides these there are numerous tombs and temples round the relics of emperors, saints, and statesmen. The most prominent, perhaps, is the tomb of Adham Khan, an octangular building with a dome, now used as a rest-house for the officers of the Delhi ditsrict.

Between the Kutb and Delhi is the tomb of Safdar Jang, the Wazír of the Emperor Ahmad Shah. It is about five miles from modern Delhi, and stands in the centre of an extensive garden on a lofty terrace containing arched cells. The roof of the tomb is surmounted by a marble dome, and is supported by open marble pavilions on the four corners. The garden is about 300 yards square, and at each of the four corners is an octagonal tower, the sides of which, with the exception of the entrance, are covered with perforated red stone screens. Behind the gateway, and a little to the north of it, there is a *masjid* with three domes and three arched entrances built throughout of red sandstone. The terrace over which the tomb stands is 10 feet above the level of the garden and 110 feet square. In the centre of the terrace is a vault under which is the grave of Safdar Jang. The building over the grave is about 60 feet square, and 90 feet high.

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In its centre there is a room 20 feet square, containing a beautiful marble monument highly polished and massively carved. Round the centre room there are eight apartments, four square and four octagonal. The pavement and the walls of the room up to the waist are marble. The roof of the centre room is about 40 feet high, and the ceiling is formed by a flattish dome. In the centre of the roof stands a bulbous marble dome with marble minarets at each angle. The four faces of the tomb are alike both in construction and ornamentation; the latter consists of inlaid bands of marble. A stone aqueduct deprived both of its fountains and water may yet be seen in front of the tomb.

Continuing along the road from the Kutb to Delhi on the right hand side about two miles from Delhi the Jantar Mantar is reached. This was erected in the third year of Muhammad Shah A.D. 1724 by the astronomer Jey Singh, founder of the principality of Jaipur. The work was begun, but never completed, owing to the death of the projector and the disturbed state of the Empire. What was finished has been seriously injured by the Jats and others, but even now proves considerable astronomical skill on the part of the projector. The great equatorial dial is still nearly perfect, but the gnomon and the periphery of the circle on which the degrees are marked have been injured in several places. The length of the gnomon is 118 feet, base 104, and perpendicular 56. Besides this gnomon there are two others on a smaller scale, all three being connected by a wall on which is described a graduated semicircle for measuring the altitude of objects lying due east or west from hence. In a southerly direction from the great equatorial dial are two buildings exactly alike, both for observing the altitude and *azimuth* of the stars, each apparently intended to correct the other. The whole collection of instruments shows astronomical knowledge of a very high order.

The road to Delhi enters the town sideways at the Lahore gate. Outside the Delhi gate of the city near the Muttra road is a tall column known as Firoz Shah's Lat. It was formerly surrounded by the city of Firozabad, but that city is merely a ruin without inhabitants. The pillar is a sandstone monolith placed on a pyramidal building of rubble stone. It is 42 feet high, of which 35 feet towards the summit are polished, and the rest is rough. The upper diameter is 25 inches, and lower 38 inches. The colour of the stone is pale pink, and it resembles dark quartz. The chief point of interest about this monolith is that the inscription on it forms part of the edicts of Asoka, king of Magadha, by which he proclaimed his talents to the world. This pillar forms one of a series erected by him from Kabul to Orissa. There is also another pillar on the ridge inscribed with one of the edicts of king Asoka. He lived about 250 B.C. Further along the Muttra road is Purana Kila or Indrapat, supposed to be the site of the most ancient city of Delhi.

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Still further along the same road is the tomb of Humayun which was finished in 1865 at a cost of 15 lakhs of rupees. Besides the tomb of Humayun himself, this mausoleum contains the graves of many others of the house of Timour. This tomb of the first hereditary monarch of the Mughal race may be remembered as being the spot where Bahadur Shah, the last Mughal Emperor of Delhi, surrendered himself to the British Government after the capture of Delhi during the Mutiny, and in sight of which his sons and nephew were summarily executed for murder and treason by Hodson.

The tomb of Humayun stands near the old bed of the Jamna in the centre of a high-walled enclosure. On the west and south are two lofty tower-like gateways, which add much to the grandeur of the building. The gateways are built of grey stone ornamented with bands of red stone and marble. In the centre of the garden is a platform 5 feet high and 100 yards square, surmounted by a second platform 20 feet high and 85 yards square. In the centre of the floor of the upper platform are the graves of Humayun, and of the other Mughal princes just described. Above these graves is erected the mausoleum, the centre room of which is a square of 45 yards. It is built of red sandstone and is ornamented with marble bands. The form of the main body of the tomb is that of a square with the corners cut off, that is to say, an octagon with four short and four long sides. Each of the short sides forms one side of four octagonal cornered towers. The tomb itself is a lofty square tower surmounted by a magnificent marble dome topped with a copper pinnacle standing 140 feet from the level of the terrace. The corner towers are two-storeyed, and round these towers and the centre room in the upper storey there runs a narrow gallery. The roof is oval, and is about 80 feet in height, and formed by the dome.

The college, which is on the roof of the tomb, was at one time an institution of some importance, and men of learning and influence used to be appointed to the charge of the place. It has, however, long ceased to maintain its reputation, and for the last 150 years has been completely abandoned. In the south-east corner of the garden is a small tomb, the history of which is unknown. It stands on a terrace 8 feet high and 76 feet square, paved with red sandstone. The tomb itself is about 40 feet square, and 72 feet high to the top of the dome. The tomb inside is about 24 feet square, and has one entrance on the south. There are two marble monuments on the tomb covered with engravings of verses from the Kuran. The tomb is built almost entirely of red and grey sandstone.

There are two small tombs of great interest within a few minutes walk of the mausoleum of the Taimuria family.

"The village of Nizam-ud Din is within five miles of modern Delhi; it is entered by a lofty stone and masonry gateway, on either side of which there are rooms now occupied as a school. On the right of the visitor, as he enters the village, is the mausoleum known as the *chausat khambah*;

further on, still on his right, are the graves of the queens, the daughters and nieces of Akbar II. Turning to his left, the visitor arrives at a low gateway through which he enters a stone paved enclosure about 60 feet square; on his left, is a room now occupied as a school with a grave in it, and on his right is the tomb of Khusrau. On the north of this court is another walled enclosure, paved with marble, which contains the tomb of Nizam-ud Din. This enclosure is about 48½ yards long and 19½ yards broad, and within its walls are the graves of Jahanara Begam, Muhammad Shah and Mirza Jahangir, and the mosque known as Jamaa'th Khanah."

Mr. Carr Stephen gives the following catalogue of the members of the Delhi Royal family who are buried in this mausoleum :—

"The tomb of Humayun may be regarded as the general dormitory of the House of Taimur; for, although Akbar and his three immediate successors are buried elsewhere, no other mausoleum contains so many distinguished dead who belong to the Mughal dynasty. Round the grave of Humayun are interred Haji Begam, his wife, and the companion of his many troubles; the headless body of Dara Sheko, the accomplished and chivalrous but ill-fated son of Shah Jahan; the Emperor Muhammad, Azam Shah, the brave but unwise son of Aurangzeb, who fell in battle against his brother before Agra; the Emperor Jahandar Shah, the grandson of Aurangzeb, and his unfortunate successor, Farokhsyar, who was poisoned by his prime minister; the youthful Rafi-ud-darjat and Rafi-ud-daulah, each of whom in succession assumed imperial dignity only to relinquish it after an unimportant reign of three months; and last, though not the least, Alamgir II, who was assassinated at the instigation of his prime minister, 'Imad-ul-Mulk. Other royal princes and princesses, and their attendants and retainers, sleep close to the illustrious few whose names are preserved in history."

Further along the Muttra road and somewhat to the right of it going from Delhi, is the fort and city of Tuglakabad, built or rather finished in 1323. It is in the shape of a half hexagon, the three sides being about ¾ mile each in length and the base 1½ miles. The circuit is about 4 miles. The fort stands on a rocky height surrounded by ravines. The walls of the fort are built of massive blocks of stone of great thickness. The rock on the southern face is scarped, and the walls above rise to a mean height of 40 feet. In the south-west angle is the citadel, occupying about $\frac{1}{6}$ of the area of the fort, and containing the ruins of a large palace. The citadel is strongly defended by ranges of towers and bastions, within which were the private apartments of the Emperor. The fort of Tughlakabad has 13 gates, and the citadel 3 inner gates. It contains seven tanks for water, and three *baolis* still in good order. There are apartments underground at a depth of from 30 to 80 feet, probably for use in the hot weather. The upper part of the Fort is full of ruined houses, while the lower part seems never to have been fully inhabited. Tughlakabad formerly belonged to the Raja of Ballabgarh, but was annexed owing to the Raja's participation in the Mutiny. It is now an insignificant Gujar village, owing all its importance to the grandeur of its ruins. There is a metalled road from here to the Kutb.

Such is a short sketch of some of the principal monuments around Delhi. To describe all at length would require a separate volume, but the most important have been touched upon. For this

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purpose great assistance has been received from various books such as Carr Stephen's "Archælogy of Delhi" and Fanshawe's "Delhi Past and Present" in which objects of interest about Delhi are very fully described.

Najafgarh.

Najafgarh is a small town of about 4,000 inhabitants situated 17 miles south-west of Delhi along a metalled road: Nangloi Railway Station on the Southern Punjab Railway is about 6 miles off to the north. On entering the town from Delhi one passes through a quaint old gateway studded with spikes, a relic of the strenuous times through which the town must have passed, and one finds that the town consists of well built houses on either side of three metalled streets. Two of these are parallel and the third which connects them forms an oblong bázár. The town includes a thána, school with boarding house, a girls' school, dispensary and small municipal office. The Thána is located in a picturesque old fort from the battlements of which can be obtained a good view of the surrounding country. There is a good rest-house situated in an old garden and close by is a house built in the middle of a *ber* garden by Bishen Singh, the leading Bhora of the place. The Honorary Magistrate, Rái Bahádur Raghnáth Singh of Mitráon, holds his court in this town.

Najafgarh is of historical interest in that a battle was fought there during 1857.

The income of the notified area, derived mainly from house tax, is about Rs. 1,200 per year, the income tax paid by the residents is about Rs 1,060 and the village lands of the *mauza* are assessed at Rs 1,400.

Mahraulí.

Mahraulí is a small town 11 miles from Delhi on the metalled road to Gurgáon, with a present population of about 3,883. It is prettily situated in the low hills of which the ridge is the continuation and is built on either side of the main road which, in an inconveniently narrow form, is its main street. There is here a camping-ground, thána, dispensary, an excellent dák bungalow with considerable accommodation, and a rest-house for district officers in the building known as Adham Khán's tomb. The place is locally famous for the *Pankha Mela* which takes place in August and on which occasion the Hindús and Muhammadans on successive days form processions in which the *pankhas* or banners of special design are paraded down the main street. At this time the town is visited by large crowds and the houses, usually empty, are filled to overflowing. Here too there is a well known Hindu Temple devoted to the worship of Jogi Máya, the approach to which has been recently beautified by the munificence of the late Rái Bahádur Hardyán Singh. Mahrauli has always been a sanitarium for residents of Delhi and it is a pleasant place in which to spend a weak-end, the air being fresh and cooler than in the city. Sir Thomas Metcalfe himself had a retreat, the buildings of which are now in a ruined state: the gates of the

compound are clearly marked by the very English-looking gate-posts. Mahrauli is of world-wide historical interest owing to the presence of the Kutb Minár and is the centre of many old ruins both within the Kila Rái Pithora and without. The walls and keep of the *kila* (fort) are well defined enclosing as they do about 2 square miles of country. An excellent plan of this neighbourhood and descriptions of the various objects of interest are to be found in Fanshawe's "Delhi Past and Present," Chapter V. The principal objects of interest outside the old fort boundary are the Dargáh Kutb Sáhib, the Hauz Shamsí, the Jherna garden and the Jahází Mosque. The Dargáh is the resort of pious Muhammadans and contains many graves of interest: the Majáwars who are hereditary guardians of the shrine receive the revenue of Mahrauli, some Rs. 2,000, for their services. The Hauz Shamsí is an old tank, situated in a natural depression, which has recently been cleaned out as a famine work and it has always been used as the water supply for the Jherna gardens, a weird spot recalling *Rider Haggard's Romances.* The Jahàzí or (ship) Mosque has the legend attached to it that a pious merchant vowed to build a mosque if his ship came safely to port. The *báoli* (well) too is interesting: a local family make a livelihood by dropping down the well in return for the *bakhshísh* of sight-seers. The Municipal income is about Rs. 1,700 per year, the income tax assessment is Rs. 280, and the land revenue mostly assigned to the Dargáh amounts to Rs. 2,200.

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Farídábád.

Farídábád is said to have been founded in 1607 A. D. by Sheikh Faríd, Treasurer of Jahángír, with the object of protecting the high road which passes through the town. He built a fort, tank and mosque. Later it was the headquarters of a *parganah*, which was held in *jagir* by the Rája of Ballabgarh, till the *jagir* was resumed after the mutiny.

It is a small town some 16 miles south of Delhi of at present 4,500 inhabitants, though half a century ago the population amounted to as much as 8,000 souls. Two branch roads from the Delhi-Muttra road form a loop passing through the main bázár of the town. Close to the main road about 1½ miles off is a station on the Agra-Delhi Chord Railway. The main bázár is a fairly broad street passing through brick houses: about half way along it another bázár street branches off, leading past the post office, thána, school, rest-house and dispensary, and out of the town on to the canal.

Opposite to this street on the west of the town is the large mosque with a picturesque tank constructed by Shaikh Faríd the founder. Close to the hospital a town hall has been recently built for the benefit of the municipal committee whose meetings are held there: near the canal is an Irrigation Department rest-house. Barring the main bázár most of the houses are built of dried mud and are decidedly mean in appearance. The town is not a great trading centre nowadays, as the communications with Delhi are so

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good that the *zamíndárs* deal direct with the city merchants. The income of the Municipal Committee is about Rs. 6,500 per year, the income tax assessment is now about Rs. 300, and the agricultural land of the *mauza*, which is famous for its gardens, *mendhí* cultivation and rich crops is assessed to Rs. 3,945 land revenue. Statistics of population, taxes, and trade show that the town is receding in importance from the position which it used to hold.

Ballabgarh.

The name Ballabgarh is probably a corruption from Balramgarh, the fort of Balram, its founder, and the place is by no means an ancient town. The earliest account of its becoming important shows that in 1705 Gopál Singh, a Ját *zamindar* of the village Alawalpúr, came and settled in Sihí near Ballabgarh, having turned out the Taga cultivators of that place. As he waxed strong by plundering travellers on the Muttra road, he was able to attack Amjad, the Rájput Chaudhri, and, with the aid of the Gújars of Tigáon, to kill him. Murtaza Khan the local official in Farídábád tried in 1710 to settle matters by appointing Gopál Singh Chaudhri of the Farídábád Pargana with a cess of one anna in the rupee on the revenue. In 1711 Gopál Singh died and was succeeded by his son Charan Dás who, seeing how weak the imperial grasp was growing even in the nearer districts, appropriated the revenue and openly refused to make it over to Murtaza Khan. He was however seized in 1714 and imprisoned by the latter in Farídábád fort where he remained some little time till his son Balram, duping the Muhammadan officer under pretence of paying a ransom, set him at liberty.

[The story goes that he promised to pay a large amount in cash directly his father was freed. To carry out the arrangement it was stipulated that the captive should be set at liberty directly the silver came into the hands of his captors. He was brought guarded to the side of the tank near Ballabgarh, and when the cart bringing the treasure had come up, and one or two bags of rupees had been examined, Charandás was let go. He immediately made of on a fleet horse with his son. The other bags were found to contain *paisa.*]

Father and son then obtained the aid of the Bharatpúr Rájá Surajmal and killed Murtaza Khan. The ascendancy of the Bharatpur Chief continued down to 1738; in the next year the Delhi King gave the titles of *Náib Bakhshí* and *Ráo* to Balram and it was to celebrate the acquisition of these honours that Balram built the stone fort-palace of Ballabgarh. He was not allowed long to enjoy his rank, for he was killed in return for his murder of Murtaza Khan by Akibat Mahmud the son of his victim. His sons Kishan Singh and Bishan Singh remained in possession of the Ballabgarh Fort and they were in 1762 nominated *Kiladar aur Nizám* of this *parganah* by the Máhárájá of Bharatpúr. In 1774 however he dismissed them from his service and they died about the same time. Next year Ajít Singh, son of Kishan Singh, and Híra Singh, son of Ráo Kishan Das, presented themselves before the Emperor at Delhi and

agreed to deliver possession of the Ballabgarh *parganah* to the royal authority: one Najaf Khán of the imperial establishment was deputed to take it. Ajít Singh was appointed *Kiladár* and *Nizám* of Ballabgarh while Hira Singh was taken away by the Nawáb Najaf Khán to Agra. The next year he came back and Ajít Singh was formally entitled Rájá, and Hira Singh was called Rájá and also Sálár Jang. The revenue of Ballabgarh was estimated at Rs. 1,20,000 and it was made an *istamrár* tenure of 60,000 rupees. Meanwhile the administration of the country had come into the hands of Mádhoji Scindia who remitted the amount taken as *istamrárí*. In 1793 Ajít Singh was murdered by his brother Zálim, but was succeeded by his son Bahádur Singh. In 1803 on the approach of General Lake, Bahádur Singh sent his son Pirthí Singh and Híra Singh sent his son Ganga Parshad to the English army. Pirthí Singh was killed at the fight at Dára Mukandra, and Ganga Parshád ran away. It appeared that Híra Singh was in collusion with the Mahrattas and so he was turned out of office; Bahádur Singh was confirmed in it in 1804 and received next year the grant of *parganas* Pálí and Pákal in return for undertaking the police arrangements of the road. This Rájá built the *town* of Ballabgarh which is also called Rámganj.

Bahádur Singh having died in 1806, Naráyan Singh his son succeeded but died also in the same year. Anrud Singh became Rájá and ruled till 1818. His minor son Sáhib Singh came next and the widow of Anrud Singh built the Chhatri with a *pakka* tank in memory of her deceased husband. Sáhib Singh died childless in 1825 and was succeeded by his uncle Rám Singh. In the time of this prince the *parganahs* of Pálí and Pákal were resumed by the Government, the Magistrate of Delhi undertaking the charge. Farídábád *parganah* meanwhile was left in the charge of Rám Singh and he was considered responsible for maintaining the public peaçe on the Muttra road between the limits of the Burhiya bridge and *mauza* Pirthala in Palwal. Rám Singh died in 1829 and Nahar Singh his son came to power. The earlier years of his reign saw great mischief and intrigue caused by Abhe Rám and Pirthí Singh the ministers, through whose mismanagement the estate fell into debt. In 1839 Abhe Rám was dismissed and Nawal Singh the maternal uncle of Nahar Singh came into power: he ejected Pirthí Singh and in conjunction with Rám Parshád, nephew to Deo Kanwar, became the actual ruler, though all acts continued to be done in the name of Rájá Nahar Singh.

In 1840 Nawal Singh becoming absolute, disputes ran high and di-organisation increased, so the British Agent was appealed to and his interference sought.

Enquiries were instituted through a special Commissioner deputed to Ballabgarh and the management of the territory was experimentally entrusted to Kanwar Madho Singh, a grand

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nephew of Rájá Bahádur Singh (the first chief within the time of the British influence), but the plan failed and *parganah* Faridábád was taken under British management. The young Rájá however protested against this and when he attained his majority and urged his competency to manage his own affairs, the territory was restored to him. Yet after a long reign he was implicated in correspondence with the mutineers in 1857 and was hanged. The Ráj was confiscated but the dowager Ráni Kishan Kanwar was given a pension and allowed to live in Ballabgarh, where she bought the *zamíndárí* right from Government for Rs. 64,500. The ownership of the village has since passed into the hands of the Rájá of Faridkot.

Ballabgarh is a town of 4,000 inhabitants, 23 miles from Delhi along the Delhi-Muttra Road. It is the headquarters of a tahsil and possesses a thána, school, dispensary, a veterinary dispenssary with stallion stables, and a new Town Hall. There is a station on the Agra-Delhi Chord Railway about a mile from the town. The town itself is a collection of mean houses, but has two broad bázárs crossing one another at right angles and forming a small square in the centre: from these bázárs issue smaller streets but all at right angles to the main bázár with a wall at the end of each: the town is said to have derived its regular shape from having been built on the model of Jaipúr. The fort, which is outside the town, contains the palace of the former Rájá; it used to consist of several houses of which all, except one, have gone to ruin. There is left only a square two-storied building of white sand stone with carved doors and a courtyard in the centre, which is utilised as a tahsíl: outside this is a building now used as a thána. The fort is surrounded by a stone wall about 30 feet high. The town is inhabited mostly by agriculturists and has fallen off in importance since the absorption into British territory.

The municiapl income averages Rs. 10,000, Rs. 1,100 is paid in income tax, and the land revenue demand on the agricultural profits amounts to Rs. 3,000, most of which is assigned to the owner, the Rájá of Farídkot.